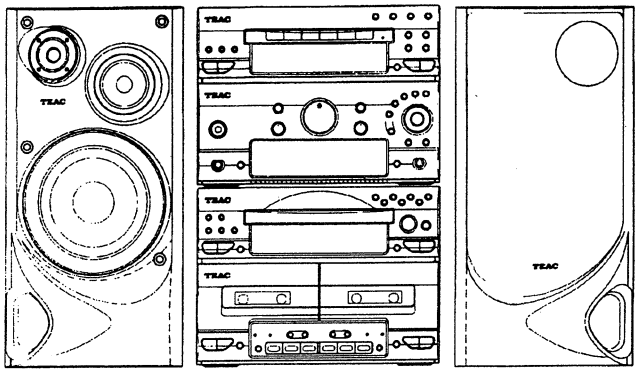
TEAC



SERVICE MANUAL

DC-D2200/DC-D1800

DIGITAL COMPACT HI-FI SYSTEM

NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.
  [GE]:GENERAL EXPORT [E]:EUROPE [UK]:U.K. [A]:AUSTRALIA

Effective : February 1995

D001 52300A

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DECK/COMPACT DISC PLAYER **DECK/CDP**

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DC-D1800

DECK/COMPACT DISC PLAYER

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PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual, electrical components having such features are identified by a ⚠ in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same-safety characteristics as specified in the parts list may create shock, fire or other hazards.

TECHNICAL SPECIFICATION

AMP

1 KHz Continuous Power, THD 0.5%, 1KHz (8Ω) .....
- 35W (DC-D1800)
- 50W (DC-D2200)

S/N Ration AUX/LDP/VCR.....85dB
Sensitivity and impedance AUX/LDP/VCR.....220mV/20KΩ
Frequency response .....20Hz~50KHz(-3dB)
Channel Separation AUX/LDC/Record.....55dB

TUNER

FM TUNER SECTION

Frequency Range .....87.50~108.00MHz
Sensitivity (S/N 30 dB) 3μV (75Ω)
Total Harmonic Distortion (THD):Mono 0.25%
Total Harmonic Distortion (TDH):Stereo.....0.4%
S/M Ratio Mono 70dB
S/N Ration Stereo.....65dB
Frequency Response.....20Hz~15kHz, ±0.5dB~3dB
AM SUPPRESSION 55dB
Stereo separation 1 kHz.....40dB

MW TUNER SECTION

Tuning Range.....522kHz~1620kHz (9kHz-step)
Sensitivity (S/N 20 dB).....20μV, 300μV/m
THD.....1.8%
S/N Ratio 40dB

COMPACT DISC PLAYER (DC-D1800)

AUDIO

Number of channels.....2 Channels
Frequency response.....20Hz~20,000Hz ±1.5dB
S/N Ratio.....93dB (use of IHF 'A" Filter)
THD .....0.08% (1kHz, 0dB Typical)
Channel Separation .....More than 80dB (1kHz)

SIGNAL

Sampling Frequency 44.1kHz
Error Correction Method.....CIRC
Decoding D/A.....16 bit Linear
Low Bandwidth Filter.....Use of 4 times oversampling digital filter

PICK-UP

Method.....Non-contact optical reading
Source of light .....Semiconductor Laser
Wave length of light 780mm

COMPACT DISC PLAYER (DC-D2200)

AUDIO

Number of channels.....2 Channels
Frequency response.....20Hz~20,000Hz±1.5dB
S/N Ratio .....93dB (use of IHF 'A' Filter)
T.H.D .....0.04%(1kHz, 0dB Typical)
Channel Separation .....More than 80dB (1kHz)

SIGNAL

Sampling Frequency 44.1kHz
Error Correction Method.....CIRC
Decoding D/A.....ΔΣ 1bit
Low Bandwidth Filter.....Use of 8 times oversampling digital filter

PICK-UP

Method.....Non-contact optical reading
Source of light .....Semiconductor Laser
Wave length of light 780mm

CASSETTE DECK

DECK Ⅰ (only for playing)

Track system .....4 track, 2-channel stereo
Tape speed.....4.8cm/sec
Motor .....DC motor
Frequency response:
Normal.....40 - 14,000Hz
CrO_2.....40 - 15,000Hz
Metal.....40 - 16,000Hz
FF and REW time .....120 second (C-60 cassette tape)

DECK Ⅱ (for recording / playing)

Track system .....4 track, 2-channel stereo
Recording system.....AC bias
Erasing system .....AC erasing
Tape speed .....4.8 cm/sec
Motor .....DC motor
Frequency response:
Normal.....40 - 14,000Hz
CrO_2.....40 - 15,000Hz
Metal.....40 - 16,000Hz
FF and REW time .....120 second (C-60 cassette tape)
Wow/Flutter.....0.15% (WRMS)
S/N Ratio Dolby B NR ON .....65dB(CCIR/ARM)
S/N Ratio Dolby C NR ON.....75dB (CCIR/ARM)
S/N Ratio NR OFF.....55dB(CCIR/ARM)

REMOTE CONTROL TRANSMITTER

Battery .....3V (AA:1.5V×2)
Dimension(W×H×D).....62×190×22(mm)
Weight 129g

GENRAL

Power consumption..... DC-D1800/EUR/EX/AUS : 140W
DC-D2200/EUR/EX/AUS : 220W
Power supply ..... [EUR] : AC 50Hz, 230V
[EX] : AC 50/60Hz, 115V/230V
[AUS] : AC 50Hz, 230V
Dimensions [W×H×D]
AMP/TUNER SECTION : 274mm×202mm×332mm
CD/DECK SECTION : 274mm×202mm×315mm
Spekaer (PCE) : 200mm×404mm×292mm
Weight (Without packaging)
DC-D1800/2200 [AMP/TUNER].....6.6 Kg
DC-D1800/2200 [DECK/CD].....5.4 Kg
DC-D2200 [DECK/CD].....5.7 Kg

AREA

Suffix for Model No.	Area
EUR	Europe
EX	Southeast Asia
AUS	Australia

Technical data subject to changes!

ADJUSTMENT

ALIGNMENT INSTRUCTIONS

EQUIPMENT NEEDED

- AM Signal Generator
- FM Signal Generator
- Oscilloscope
- VTVM (AC, DC)
- Test loop antenna (MW Adjustment)
- Dummy antenna (FM Adjustment)
- Stereo signal modulator
- Frequency counter
- Distortion analyzer

IMPORTANT

1. Check power-source voltage.
2. Set the function switch to band aligned.
3. Keep the function input as low as possible to adjust accurately.
4. Modulation and modulation frequency.

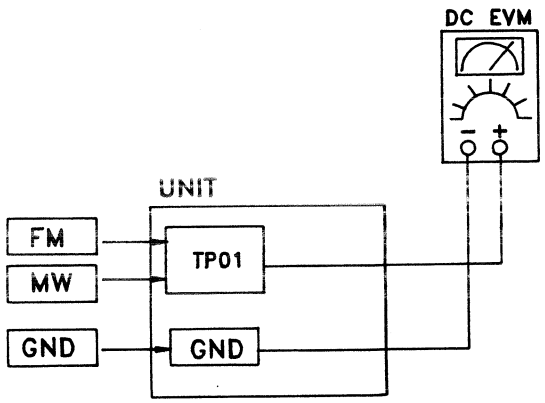
ITEM / BAND	Modulation	Modulation frequency
MW	30%	400Hz
FM	100%(75KHz Def)	400Hz

TUNING FREQUENCY RANGE ADJUSTMENT

(FM) DC VOLTMETER
- CONNECT TO TEST POINT TP4 and GND

(MW) DC VOLTMETER
- CONNECT TO TEST POINT TP4 and GND

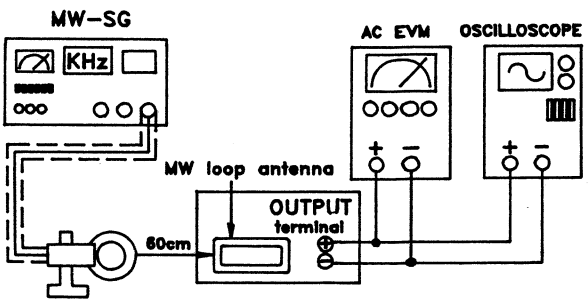
NO	Band	Frequency	Adjust for	Adjustment
1	FM	87.50MHz	1.5V	L4
2	MW	522KHz	1V	L103



MW TRACKING ADJUSTMENT

Signal generator·····Connects to the MW Ant.
Coil through the loop antenna.
Adjust for the indication of VTVM of the wave form of scope to be maximum.

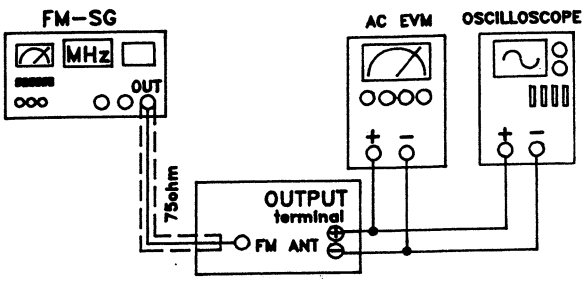
NO	Step.	Frequency	Adjust for	Adjustment
MW	1	612KHz	Maximum sensitivity	L102
	2	1503KHz	Maximum sensitivity	CT01
	3	Repeat steps 1 and 2 several times.		



FM-RF ADJUSTMENT

Signal generator·····Connects to FM ANT. JACK(FM IN) through the dummy.

NO	Frequency	Adjust for	Adjustment
1	90.10MHz	Maximum sensitivity	L1, L2, L3
2	Repeat step 1 several times		



FM MONO DISTORTION ADJUSTMENT

DC VOLTMETER

- Connect to TP03(-), TP04(+) through the chock coil (100μH)

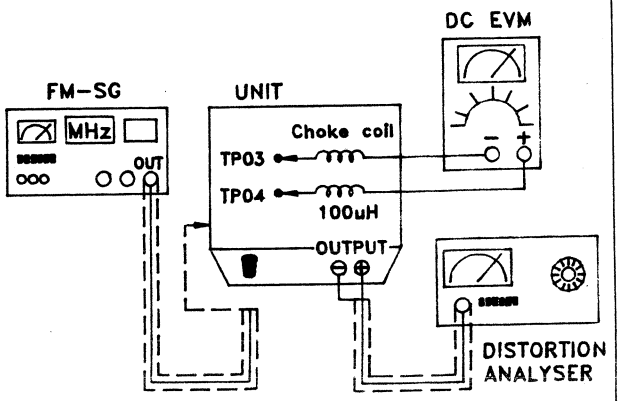
Signal Generator

- Connect to FM ANT Jack(FM IN) through the dummy.

DISTORTION METER

- Connect to the output

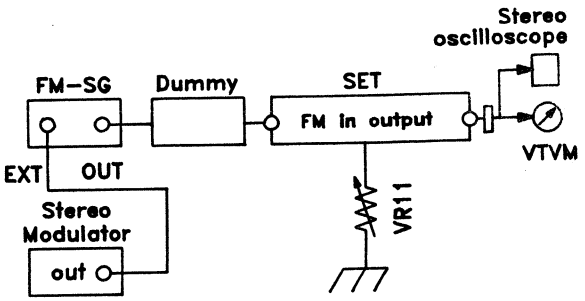
NO	Frequency	Adjust for	Adjustment
1	100.10MHz	DC Voltmeter 0V	T101
2	100.10MHz	Minimum T.H.D	T102
3	Repeat steps 1 and 2 several times		



FM STEREO SEPARATION

Pilot signal	Adjust for	Adjustment
ON	Different of R and L Must be maximum	VR11

NOTE: In case of adjusting the stereo separation, of input is L(or R) channel, R(or L) channel must be maximum.

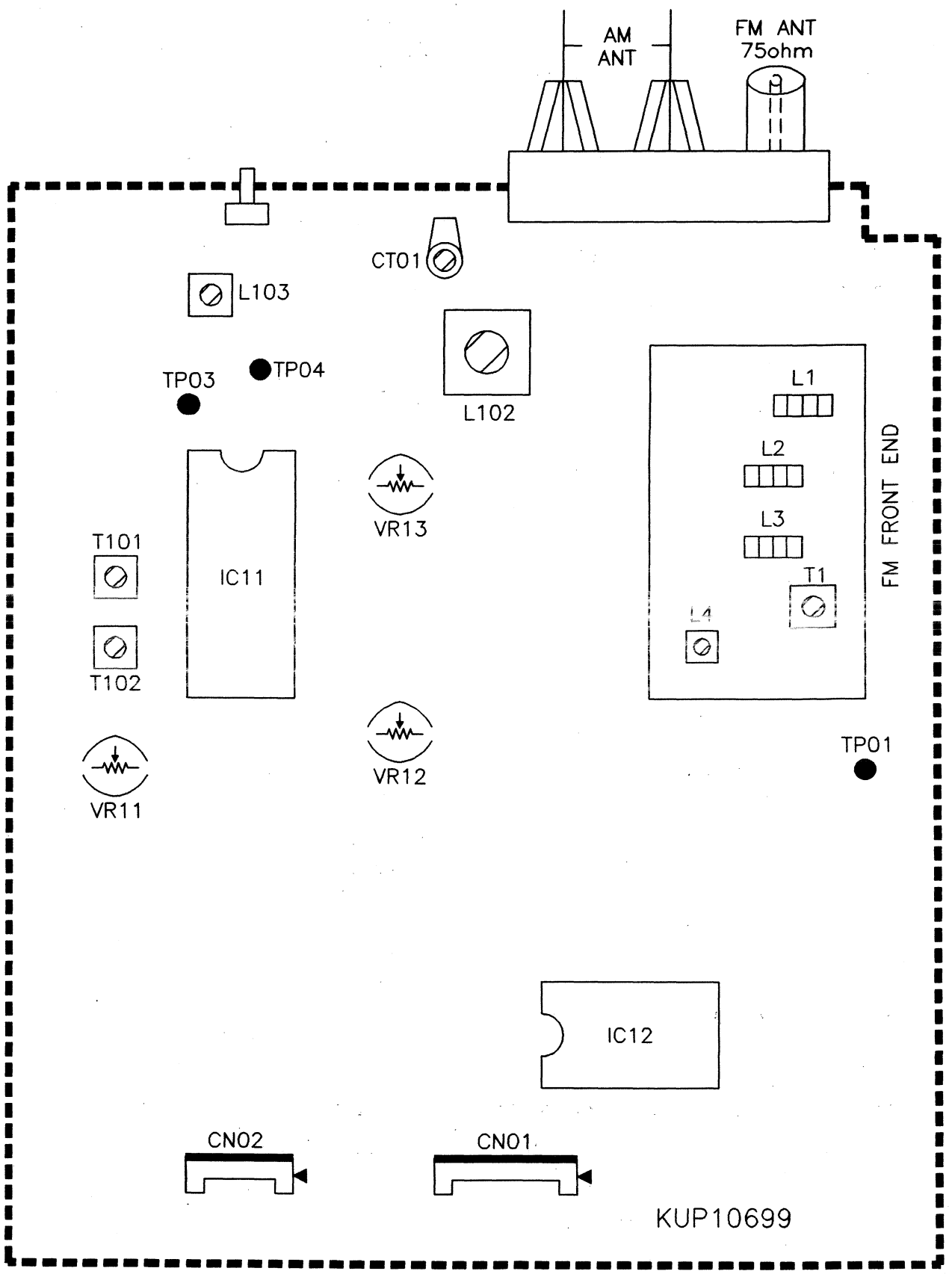


FM/MW AUTO STOP LEVEL ADJUSTMENT

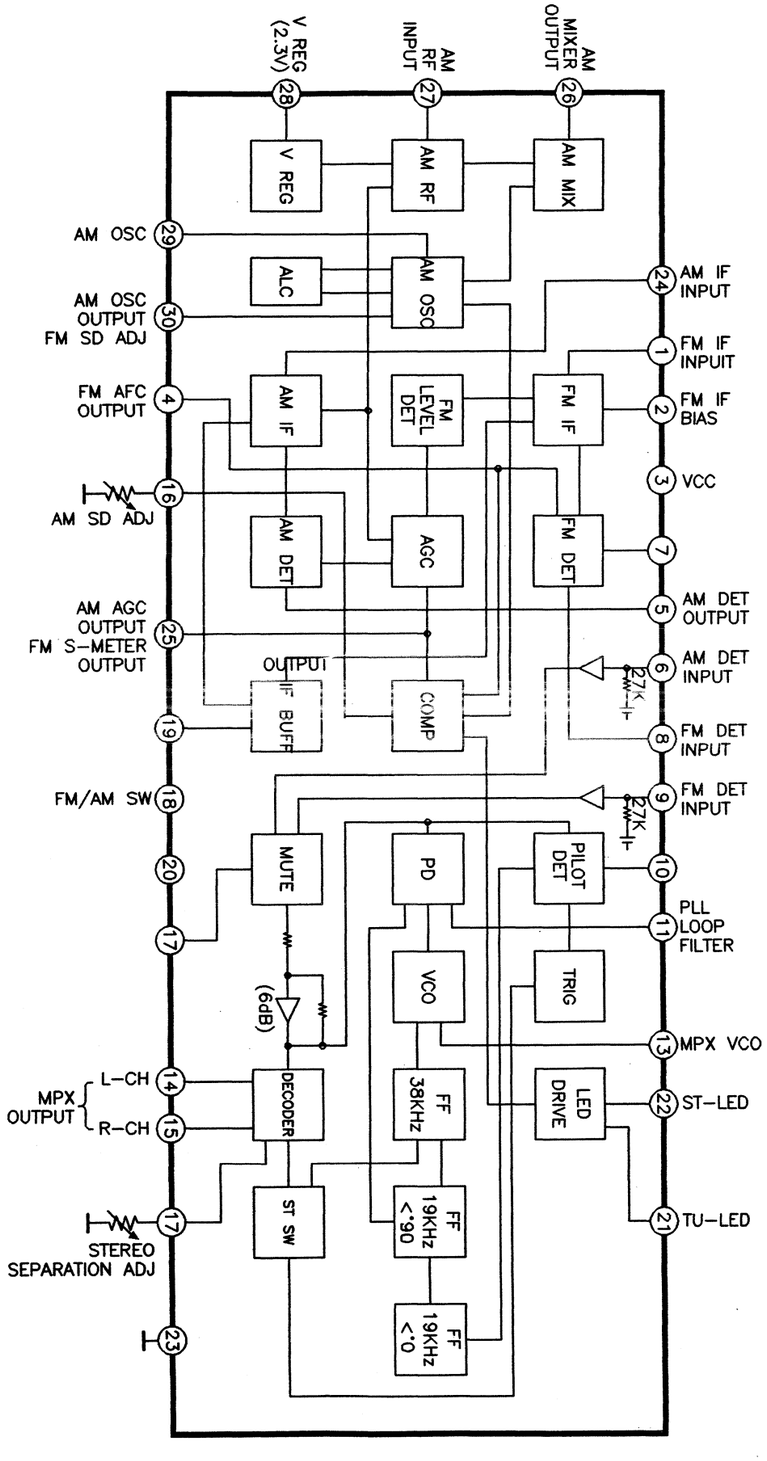
FM SIGNAL GENERATOR .....Connec to FM ANT Jack(FM IN) through the dummy
MW SIGNAL GENERATOR .....Connec to MW ANT, Coil through the Loop antenna

BAND	STEP	SIGNAL GENERATOR	ADJUST FOR	ADJUSTMENT
FM	1	100.1 MHz 35dB	Quartz Lock (D230) off	VR13
	2	100.1 MHz 35dB	Quartz Lock (D230) on	VR13
MW	1	999 KHz 88dB	Quartz Lock (D230) off	VR12
	2	000 KHz 88dB	Quartz Lock(D230) on	VR12

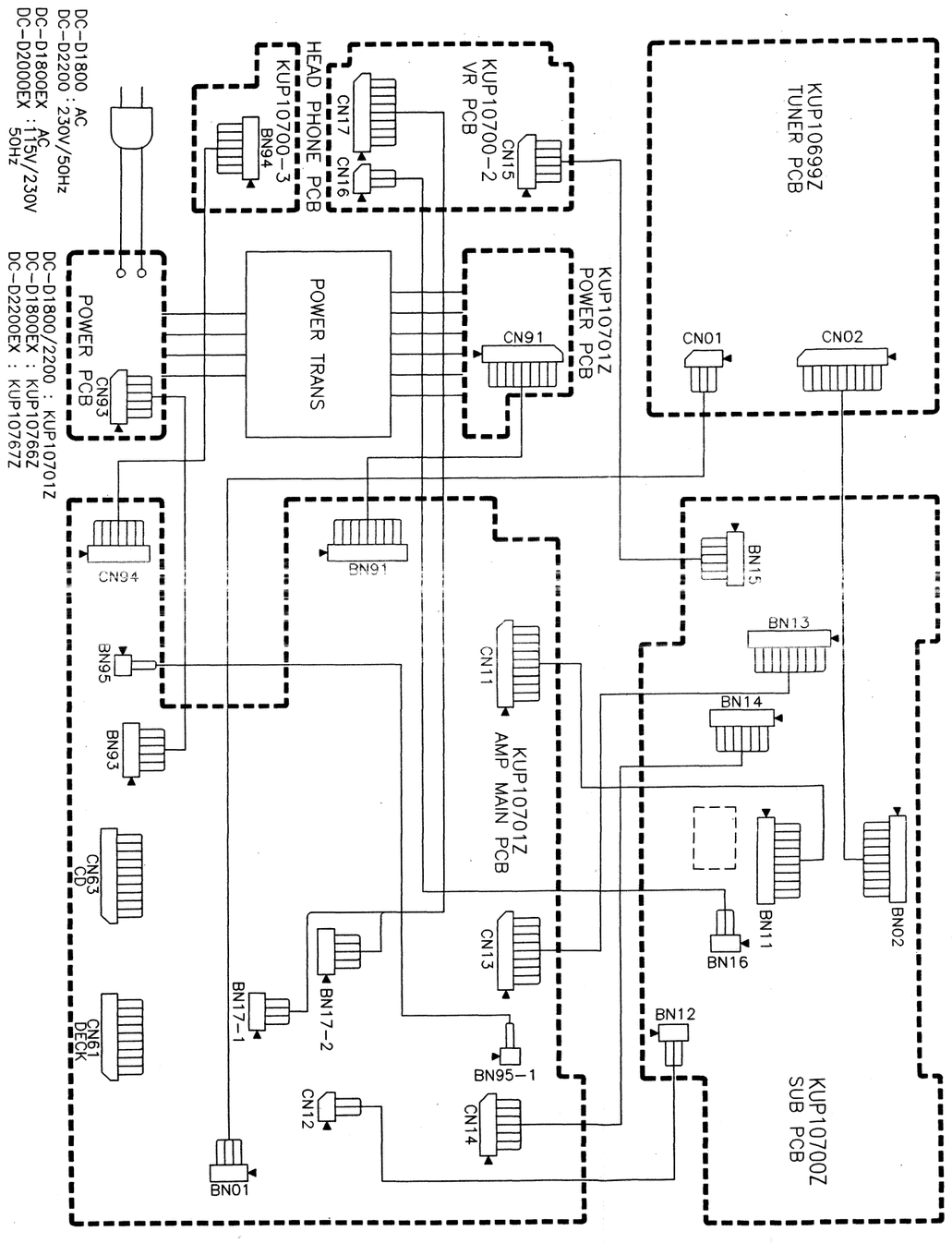
DC-D1800/D2200 TUNER ADJUSTMENT



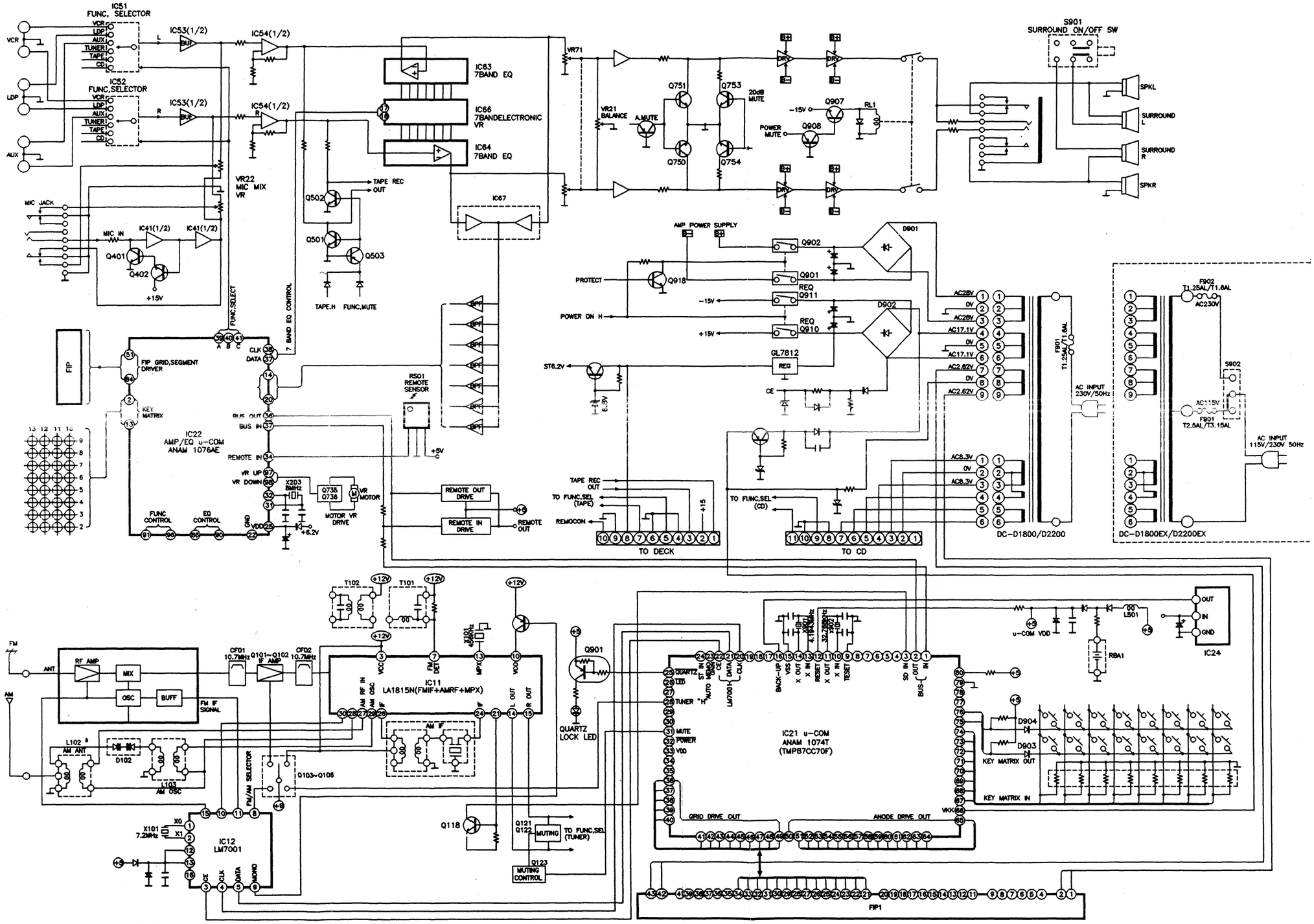
LA1851N BLOCK DIAGRAM



AMP/TUNER WIRING DIAGRAM



AMP/TUNER BLOCK DIAGRAM



DC-D2200 AMP
MAIN SCHEMATIC DIAGRAM

	TUNER	TAPE	CD	VCR	AUX	LDP
PIN9 (A)	L	L	L	H	H	H
PIN10 (B)	L	L	H	L	L	H
PIN11 (C)	L	H	L	L	H	L

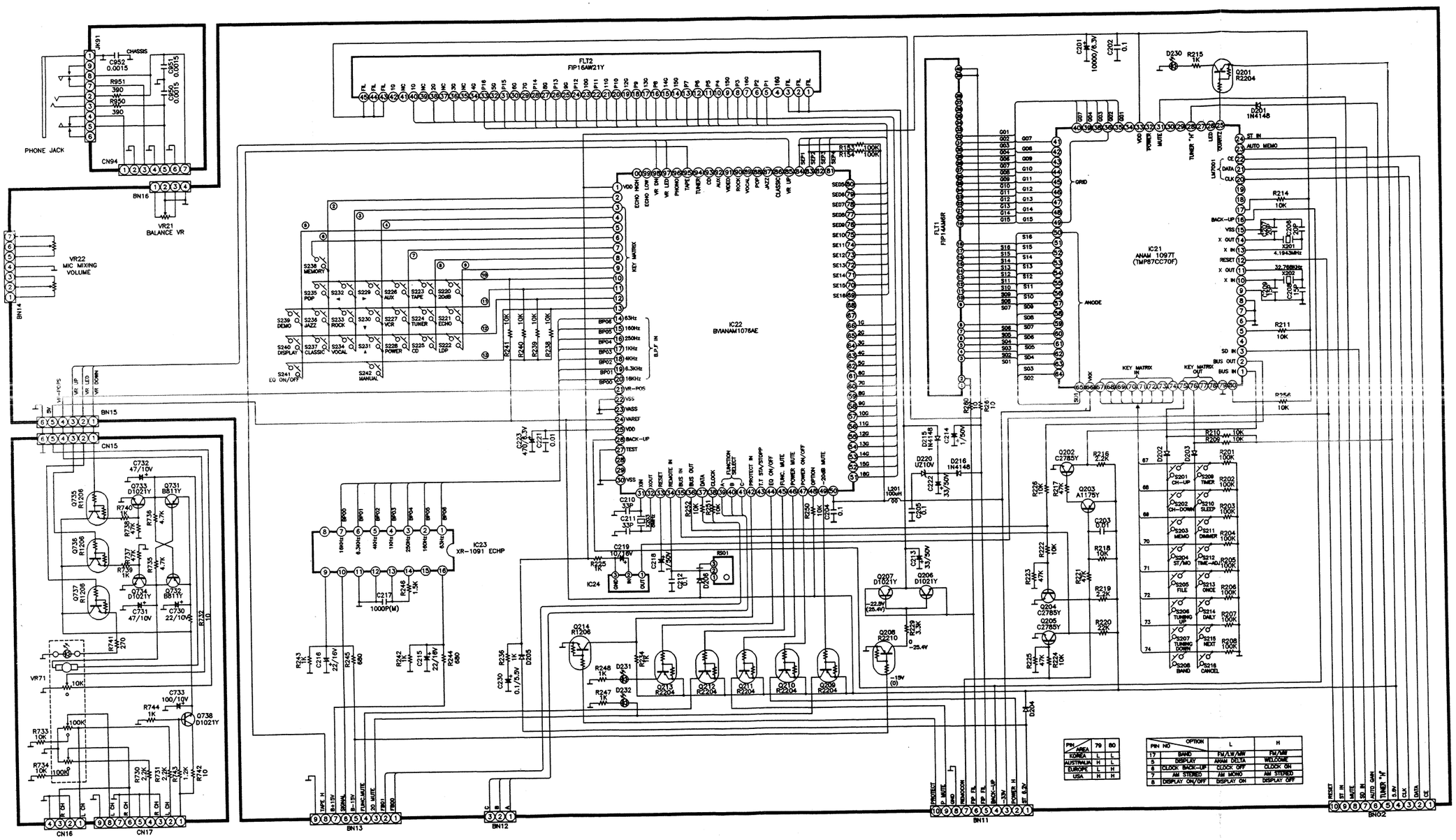
** IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS, IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.
** THE UNIT OF RESISTANCE IS OHM (Ω)
K=1000 OHM, M=1000 KOHM
** THE UNIT OF CAPACITANCE IS MICROFARAD (uF).
P=10⁻⁶ uF
** THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE.

DC-D1800 AMP
MAIN SCHEMATIC DIAGRAM

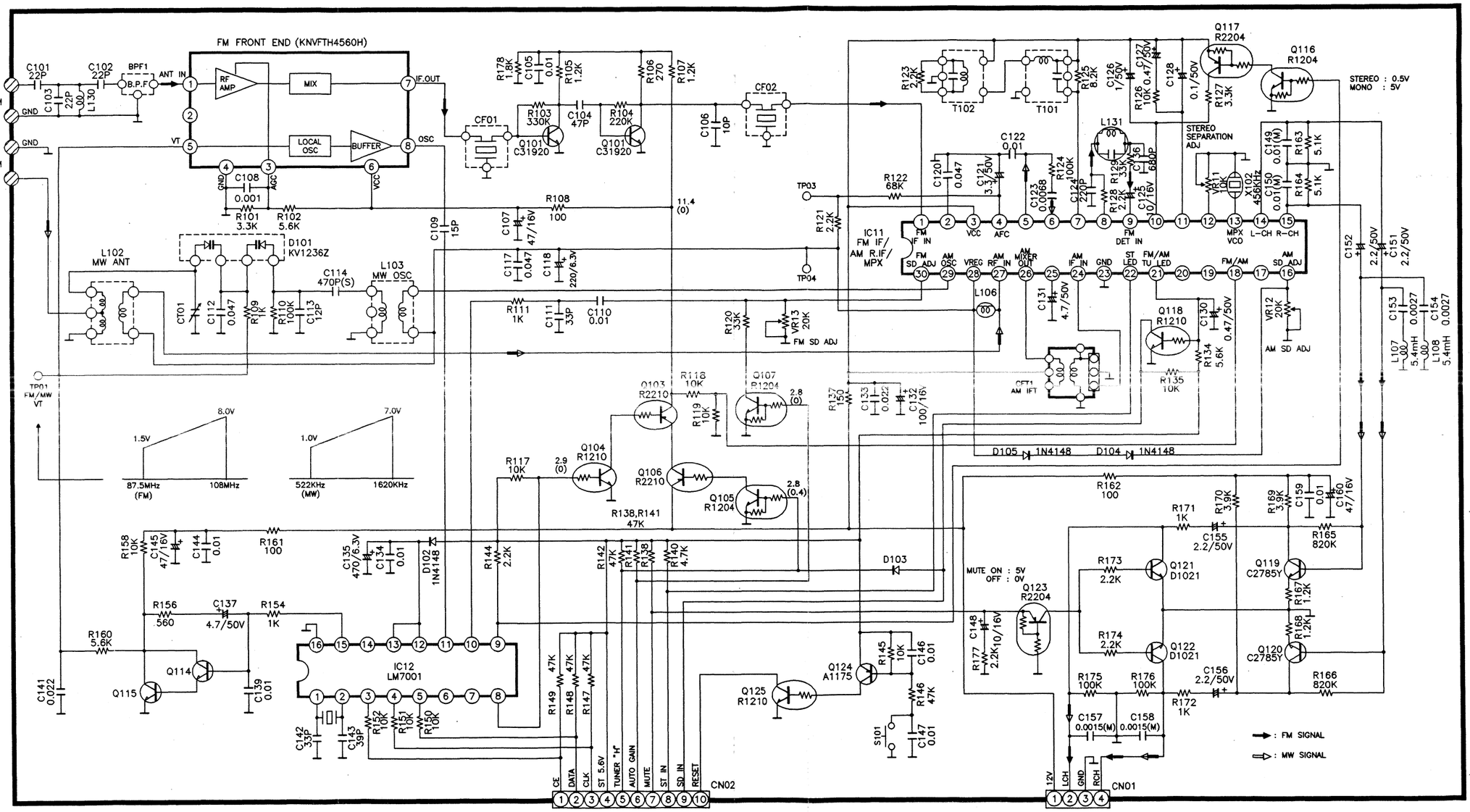
	TUNER	TAPE	CD	VCR	AUX	LDP
PIN9 (A)	L	L	L	H	H	H
PIN10 (B)	L	L	H	L	L	H
PIN11 (C)	L	H	L	L	H	L

** IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS. IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.
** THE UNIT OF RESISTANCE IS OHM (Ω)
K=1000 OHM, M=1000 KOHM
** THE UNIT OF CAPACITANCE IS MICROFARAD (uF).
P=10^{-6} uF
** THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE.

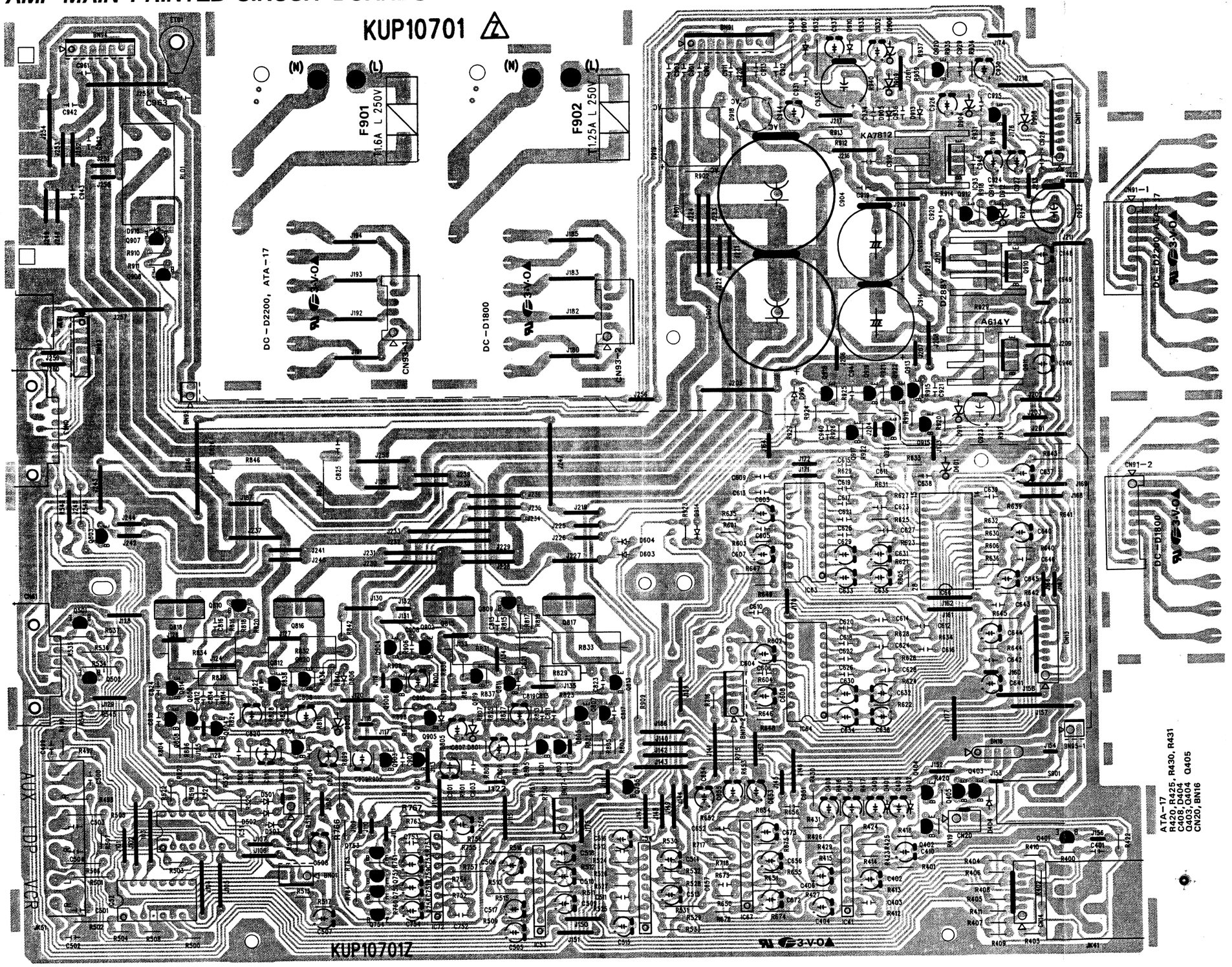
AMP/TUNER SUB SCHEMATIC DIAGRAM



TUNER SCHEMATIC DIAGRAM

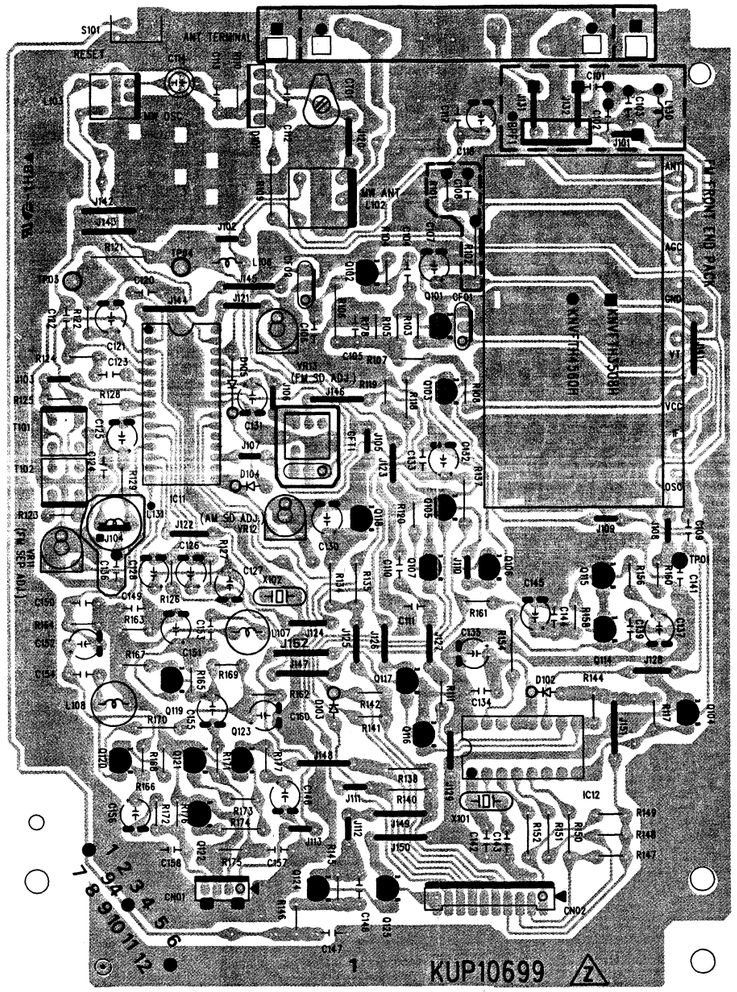


AMP MAIN PRINTED CIRCUIT BOARDS

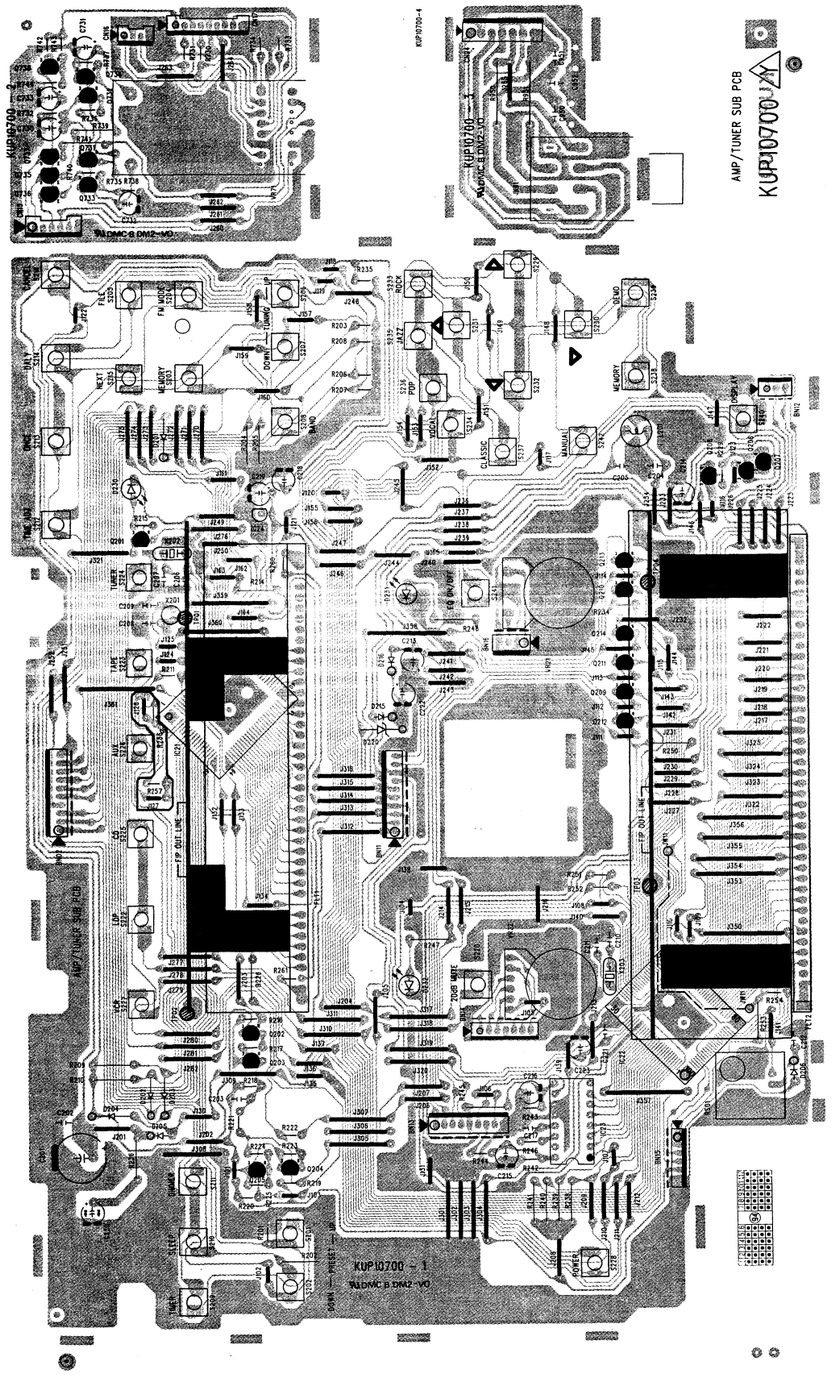


AMP/TUNER PRINTED CIRCUIT BOARDS

■ MAIN PCB



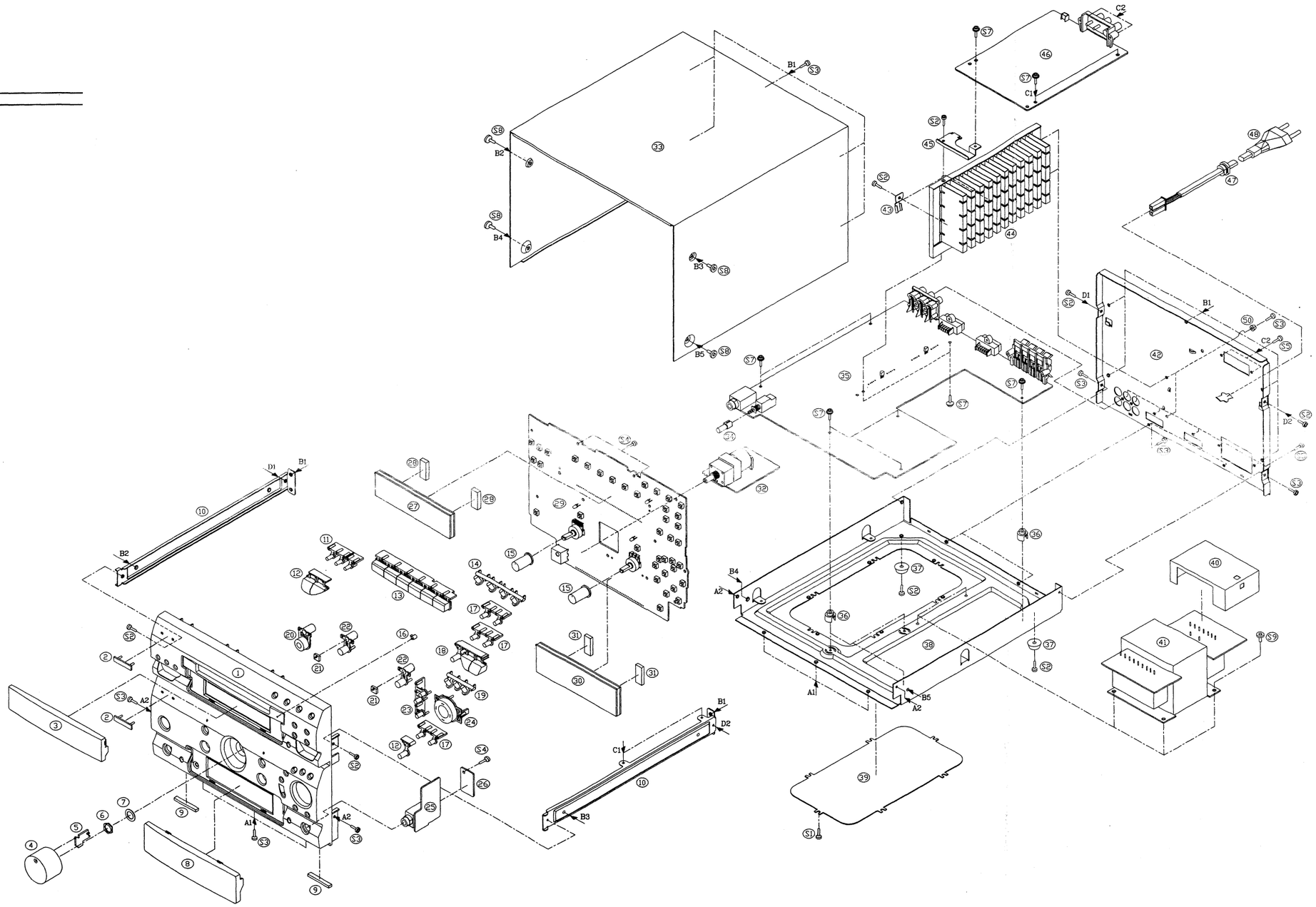
■ AMP/TUNER SUB PCB



DC-D2200
■ AMP/TUNER EXPLODED VIEW

EXPLODED VIEW-2 (DC-D2200)

Ref. No.		Part No.	Description	Remarks
1		9A05355300	PANEL , FRONT	
2		9A05325000	BADGE,TEAC	
3		9A05325600	WINDOW , FLT	
4		9A05190200	KNOB,VOLUME	
5		9A05192500	INDICTOR,VDL	
6			NUT	
7			WASHER	
8		9A05325700	WINDOW , FLT	
9		9A05327000	RUBBER , FOOT	
10		9A05332800	FRAME , L&R	
11		9A05318200	KNOB , TACT	
12		9A05192000	KNOB,TACT	
13		9A05191200	KNOB,FUNCTION	
14		9A05191000	KNOB,TACT	
15		9A05190300	KNOB,ROTARY	
16		9A04877000	DOT-AC	
17		9A05190800	KNOB,TACT	
18		9A05191700	KNOB,TACT	
19		9A05190600	KNOB,TACT	
20		9A05190400	KNOB,TACT	
21		9A05192400	INDICTOR,FLAT	
22		9A05190500	KNOB,TACT	
23		9A05190700	KNOB,TACT	
24		9A05190900	KNOB,TACT	
25			MIC JACK PCB ASSY	
26			PCB,GUIDE	
27			TUNER FLP	
28		9A05327100	GUIDE , FLT	
29		9A05334200	SUB PCB ASS'Y /D2	
30				
31			GUIDE, FLT	
32				
33		9A05331200	CABINET , TOP	
34		9A05318000	KNOB , PUSH	
35		9A05357500	MAIN PCB ASSY	
36		9A01375500	PCB HOLDER	
37		9A05331700	RUBBER , FOOT	
38		9A05339500	CHASSIS , MAIN	
39		9A05339800	BOTTOM , CHASSIS	
40		9A05333400	INSULATOR	
41			POWER TRANS ASSY	
T901	⚠	9A05357000	TRANS , POWER [E, UK]	
T901	⚠	9A05307400	TRANS , POWER [GE]	
T901	⚠	9A05307500	TRANS , POWER [A]	
F901	⚠	9A05353400	FUSE 2C1600TLE	
42		9A05356700	PANEL , REAR	
43		9A01531100	TR BRACKET	
44		9A05333600	HEAT SINK	
45		9A05357100	BRACKET , PCB	
46		9A05334100	TUNER PCB ASS'Y	
47	⚠	9A01376900	CORD PUSHING	
48	⚠	9A05328100	CORD , POWER [E]	
	⚠	9A05307800	CORD , POWER [GE]	
	⚠	9A05308000	CORD , POWER [UK]	
	⚠	9A05307900	CORD , POWER [A]	
49			FUSE PCB ASSY [GE]	
50		9A05331800	RUBBER, SILICON	

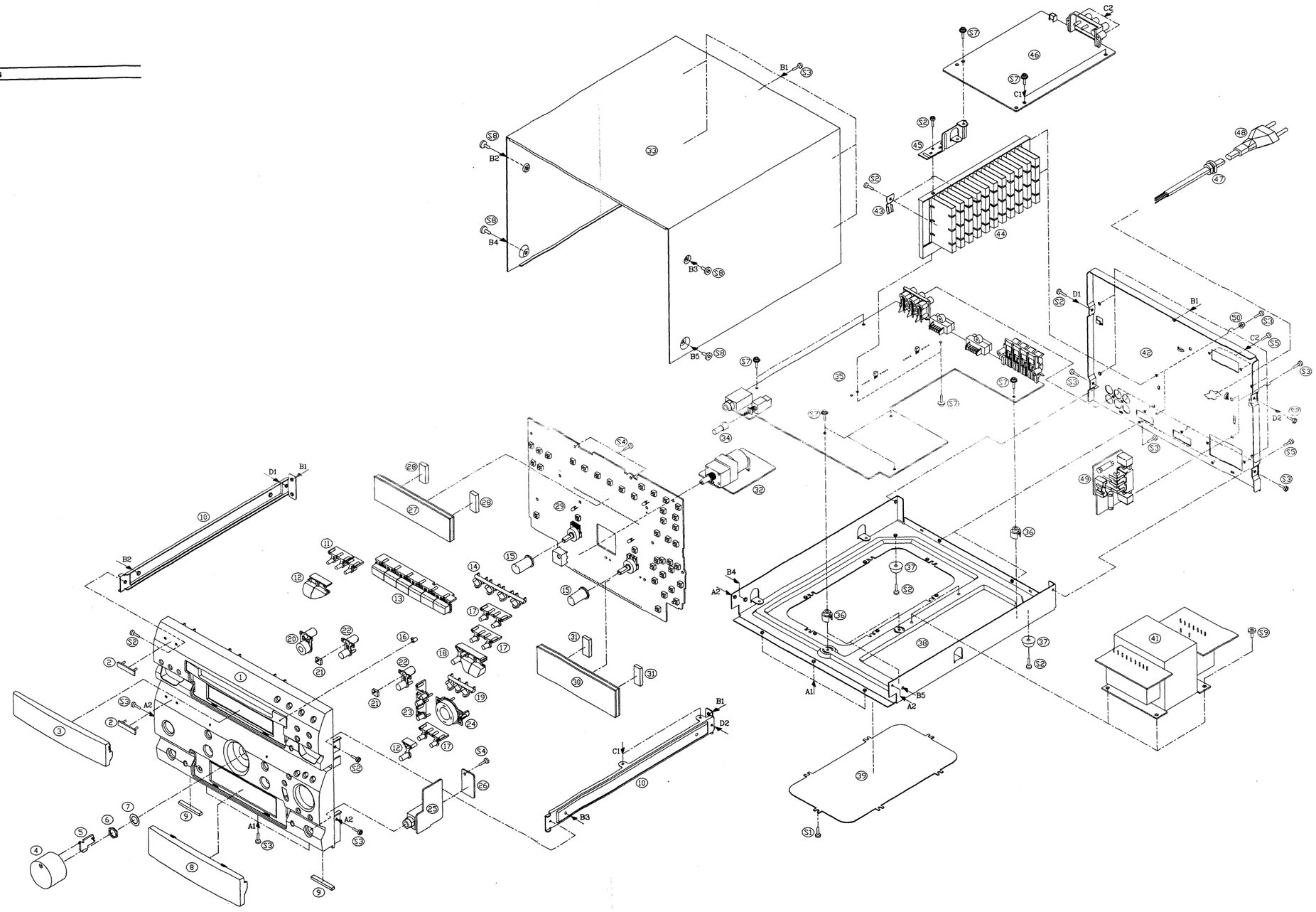


DC-D1800

■ AMP / TUNER EXPLODED VIEW

EXPLODED VIEW-5 (DC-D1800)

Ref. No.	Part No.	Description	Remarks
1	9A05326200	PANEL , FRONT	
2	9A05325000	BADGE,TEAC	
3	9A05325600	WINDOW , FLT	
4	9A05190200	KNOB,VOLUME	
5	9A05192500	INDICTOR,VDL	
6			
7			
8	9A05325700	WINDOW , FLT	
9	9A05327000	RUBBER , FOOT	
10	9A05332800	FRAME , L&R	
11	9A05318200	KNOB , TACT	
12	9A05192000	KNOB,TACT	
13	9A05191200	KNOB,FUNCTION	
14	9A05191000	KNOB,TACT	
15	9A05190300	KNOB,ROTARY	
16	9A04877000	DOT-AC,	
17	9A05190800	KNOB,TACT	
18	9A05191700	KNOB,TACT	
19	9A05190600	KNOB,TACT	
20	9A05190400	KNOB,TACT	
21	9A05192400	INDICTOR,FLAT	
22	9A05190500	KNOB,TACT	
23	9A05190700	KNOB,TACT	
24	9A05190900	KNOB,TACT	
25			
26			
27			
28	9A05327100	GUIDE , FLT	
29	9A05334200	SUB PCB ASS'Y	
30			
31			
32			
33	9A05331200	CABINET , TOP	
34	9A05318000	KNOB , PUSH	
35	9A05334300	MAIN PCB ASS'Y	
36	9A01375500	PCB HOLDER	
37	9A05331700	RUBBER , FOOT	
38	9A05339500	CHASSIS , MAIN	
39	9A05339800	BOTTOM , CHASSIS	
40	9A05333400	INSULATOR	
41		POWER TRANS ASSY	
T901	9A05192800	TRANS , POWER [E, UK]	
T901	9A05307600	TRANS , POWER [GE]	
T901	9A05307700	TRANS , POWER [A]	
F901	9A05353400	FUSE 2C1600TLE	
42	9A05331300	PANEL , REAR	
43	9A01531100	TR BRACKET	
44	9A05333700	HEAT SINK	
45	9A05332900	BRACKET , PCB	
46	9A05334100	TUNER PCB ASS'Y	
47	⚠ 9A01376900	CORD PUSHING	
48	⚠ 9A05328100	CORD , POWER [E]	
	⚠ 9A05307800	CORD , POWER [GE]	
	⚠ 9A05308000	CORD , POWER [UK]	
	⚠ 9A05307900	CORD , POWER [A]	
49		FUSE PCB ASSY [GE]	
50	9A05331800	RUBBER , SILICON	
S2	9A01535800	SCREW,KTB3*8J	



ELECTRICAL PARTS LIST

CAUTION : A ⚠ in the schematic diagram and the parts list designates components which have special characteristics important to safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.
Before replacing any of it these components, read carefully the PRODUCT SAFETY NOTICE on page 2 in this manual. Do not harm the safety of the unit through improper servicing.

■ Numbering System of Resistor

Example

KRD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor Type	Wattage	Tolerance
KRD: Carbon	20:1/5W	F:=±1%
KRG: Metal Oxide	25:1/4W	J:=±5%
	50:1/2W	K:=±10%
	12:1/2W	
KRF:Metal Cement	1:1W	
	2:2W	
	3:3W	

■ Numbering System of Capacitor

Example

KCKR	1H	101	K	B
Type	Voltage	Value	Tolerance	Peculiarity

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
KCB:Ceramic	OJ:6.3V	1H:50V DC	C:±0.25pF
KCC:Ceramic	1A:10V	1:125V DC	G:±2%
KCK:Ceramic	1C:16V	KC:400V AC	J:±5%
KCFR:Semiconductor	1E:25V	D25V DC	K:±10%
KCQI:Polyester	1H:50V		Z:+80%, -20%
KCQP:Polypropylene	1V:35V		
KC1S:Polystyrol			

MAIN PCB ASSY (DC-D2200)

Ref. No.		Part No.	Description
		9A05357500	MAIN PCB ASS'Y
		9A05340100	PCB , MAIN
		9A01532600	SCREW
		9A05339200	SCREW KTW3+8J
		9A05333600	HEAT SINK
		9A01535800	SCREW,KTB3*8J
	⚠	9A05196000	IC,MC7812C
		9A05333600	HEAT SINK
		9A01535800	SCREW,KTB3*8J
		9A01388300	TR., KVTKSD288Y
		9A05333500	HEAT SINK
		9A01535800	SCREW,KTB3*8J
		9A01388400	TR., KVTKSA614Y
C904 ,C905		9A05354500	C, ELEC A1HU472E
C914 ,C915		9A01402000	C,ELEC 2200UF/25V
D401,D402		9A01390500	DIODE,1N4148MT
D501-D503		9A01390500	DIODE,1N4148MT
D601		9A05194000	DIODE,ZENER MTZJ5.1BT
D603,D604		9A01390500	DIODE,1N4148MT
D801,D802		9A05193600	DIODE,ZENER MTZJ15BT
D805,D806		9A01390500	DIODE,1N4148MT
D901	⚠	9A05353100	DIODE , BRIDGE PBPC604F
D902	⚠	9A05188900	DIODE,PBM152F
D904	⚠	9A05194100	DIODE,ZENER MTZJ6.8BT
D905,D907	⚠	9A05194600	DIODE,1N4003SRT
D906	⚠	9A05193700	DIODE,ZENER MTZJ24BT
D908	⚠	9A05194000	DIODE,ZENER MTZJ5.1BT
D909	⚠	9A05193800	DIODE,ZENER MTZJ33BT
D910	⚠	9A01390500	DIODE,1N4148MT
D911,D912	⚠	9A05359600	DIODE, ZENER MTZJ12BT

Ref. No		Part No	Description
D913	⚠	9A05194600	DIODE,1N4003SRT
D914-D916		9A01390500	DIODE,1N4148MT
D915		9A01390500	DIODE,1N4148MT
F901		9A05328200	HOLDER , FUSE
IC41		9A05195800	IC,MC4558S
IC51,IC52		9A04929100	IC,GD4051B
IC53,IC54		9A05195800	IC,MC4558S
IC63,IC64		9A05189500	IC,AN7337N
IC66	⚠	9A05189700	IC,LC7522
IC67,IC72		9A05195800	IC,MC4558S
IC93	⚠	9A05196100	IC,MC7812VA
JK41		9A05316900	JACK HTJ064-05BG
JK51		9A04876000	JACK BOARD,
JK90		9A01536100	SPEAKER TERMINAL AG-35
PW91		9A05329000	WAFER MOLEX35309-0210
Q401,Q402		9A03745000	TR., KVTKSC2785YT
Q501,Q502		9A03745000	TR., KVTKSC2785YT
Q503		9A05198800	TR,KSR2204T
Q750,Q751		9A05197000	TR,KSR1210T
Q753,Q754		9A03811700	TR., 2SD1021Y
Q755		9A05198800	TR,KSR2204T
Q801-Q804		9A05341600	TR, KSA992FT
Q805-Q808		9A03745000	TR., KVTKSC2785YT
Q809,Q810		9A01388800	TR,KSC945CYT
Q811,Q812		9A05196800	TR,KSC2316YT
Q813,Q814		9A05196700	TR,KSA916YT
Q815,Q816	⚠	9A05359800	TR, KTD998O
Q817,Q818	⚠	9A05359700	TR, KTB778O
Q819,Q820		9A03745000	TR., KVTKSC2785YT
Q901	⚠	9A05196700	TR,KSA916YT

Ref. No.		Part No.	Description
Q902		9A05196800	TR,KSC2316YT
Q903		9A03745000	TR., KVTKSC2785YT
Q904,Q905		9A03745100	TR., KVTKSA1175YT
Q905		9A03745100	TR., KVTKSA1175YT
Q906,Q914		9A05196900	TR,KSR1206T
Q907		9A03811700	TR., 2SD1021Y
Q908		9A05197100	TR,KSR2210T
Q910	⚠	9A05341700	HEAT SINK ASS'Y
Q911	⚠	9A05196600	TR,KSA614YA
Q912.Q915		9A03745100	TR., KVTKSA1175YT
Q913		9A03745000	TR., KVTKSC2785YT
Q914		9A05196900	TR,KSR1206T
Q916		9A05196800	TR,KSC2316YT
Q917,Q920	⚠	9A03745100	TR., KVTKSA1175YT
Q918,Q919		9A03745000	TR., KVTKSC2785YT
Q921		9A05198800	TR,KSR2204T
Q922		9A03747200	TR., KVTKSR1204T
RL01	⚠	9A04879000	RELAY,4A004ZU
R831-R834	⚠	9A05358700	R, CEMENT 3CJR33
R845,R846	⚠	9A05337400	R, CARBON 50FJ100T
R928,R929	⚠	9A05338000	R, METAL 1ANJ100H
R932	⚠	9A05337600	R, CARBON 50TJ222T
S901		9A01393800	SW, SP
		9A05357400	HEAT SINK ASS'Y
		9A05357300	HEAT SINK
		9A01397500	SCREW,KTB3*10J
		9A01531100	TR BRACKET

FUSE PCB ASSY (DC-D2200)

Ref. No.		Part No.	Description
		9A05382500	FUSE PCB ASSY
		9A05307000	PCB, POWER
	⚠	9A05382700	SWITCH, SELECTOR
	⚠	9A05306800	FUSE F3.15A

MAIN PCB ASSY (DC-D1800)

Ref. No.		Part No.	Description
		9A05334300	MAIN PCB ASS'Y
		9A05340100	PCB , MAIN
		9A05333800	HEAT SINK ASS'Y
		9A01397500	SCREW,KTB3*10J
		9A05333600	HEAT SINK
		9A05196000	IC,MC7812C
		9A05333600	HEAT SINK
		9A01388300	TR., KVTKSD288Y
		9A05333500	HEAT SINK
		9A01535800	SCREW,KTB3*8J
		9A01388400	TR., KVTKSA614Y
		9A01531100	TR BRACKET
		9A05333700	HEAT SINK
C904 ,C90	⚠	9A05322900	C, ELEC A1HU332E
C914 ,C91	⚠	9A05323100	C, ELEC A1VU222E
D401,D402		9A01390500	DIODE,1N4148MT
D501-D503		9A01390500	DIODE,1N4148MT
D601		9A05194000	DIODE,ZENER MTZJ5.1BT
D603,D604		9A01390500	DIODE,1N4148MT
D801,D802		9A05193600	DIODE,ZENER MTZJ15BT
D805,D806		9A01390500	DIODE,1N4148MT
D901	⚠	9A05189000	DIODE,PBPC304F
D902	⚠	9A05188900	DIODE,PBM152F
D904	⚠	9A05194100	DIODE,ZENER MTZJ6.8BT
D905,D907	⚠	9A05194600	DIODE,1N4003SRT
D906	⚠	9A05193700	DIODE,ZENER MTZJ24BT
D908	⚠	9A05194000	DIODE,ZENER MTZJ5.1BT
D909	⚠	9A05193800	DIODE,ZENER MTZJ33BT
D910	⚠	9A01390500	DIODE,1N4148MT
D911,D912	⚠	9A05193600	DIODE,ZENER MTZJ15BT
D913	⚠	9A05194600	DIODE,1N4003SRT
D914-D916		9A01390500	DIODE,1N4148MT
ET01		9A05333900	PLATE , EARTH
F902		9A05328200	HOLDER , FUSE
IC41		9A05195800	IC,MC4558S
IC51		9A04929100	IC,GD4051B
IC53		9A05195800	IC,MC4558S
IC63		9A05189500	IC,AN7337N
IC66	⚠	9A05189700	IC,LC7522
IC67		9A05195800	IC,MC4558S
IC93	⚠	9A05196100	IC,MC7812VA
JK41		9A05316900	JACK HTJ064-05BG
JK51		9A04876000	JACK BOARD,
JK90		9A01536100	SPEAKER TERMINAL
Q401,Q402		9A03745000	TR., KVTKSC2785YT
Q501,Q502		9A03745000	TR., KVTKSC2785YT
Q503		9A05198800	TR,KSR2204T
Q750		9A05197000	TR,KSR1210T
Q753		9A03811700	TR., 2SD1021Y
Q755		9A05198800	TR,KSR2204T
Q801-Q804		9A05341600	TR, KSA992FT
Q805-Q808		9A03745000	TR., KVTKSC2785YT
Q809,Q810		9A01388800	TR,KSC945CYT
Q811,Q812		9A05196800	TR,KSC2316YT
Q813,Q814		9A05196700	TR,KSA916YT

Ref. No.		Part No.	Description
Q815	⚠	9A05197600	TR,TIP41C
Q817	⚠	9A05197700	TR,TIP42C
Q819,Q820	⚠	9A03745000	TR., KVTKSC2785YT
Q901		9A05196700	TR,KSA916YT
Q902	⚠	9A05196800	TR,KSC2316YT
Q903		9A03745000	TR., KVTKSC2785YT
Q904,Q905		9A03745100	TR., KVTKSA1175YT
Q906		9A05196900	TR,KSR1206T
Q907		9A03811700	TR., 2SD1021Y
Q908		9A05197100	TR,KSR2210T
Q910	⚠	9A05341700	HEAT SINK ASS'Y
Q911	⚠	9A05196600	TR,KSA614YA
Q912,Q915		9A03745100	TR., KVTKSA1175YT
Q913		9A03745000	TR., KVTKSC2785YT
Q914		9A05196900	TR,KSR1206T
Q916		9A05196800	TR,KSC2316YT
Q917,Q920		9A03745100	TR., KVTKSA1175YT
Q918,Q919	⚠	9A03745000	TR., KVTKSC2785YT
Q921		9A05198800	TR,KSR2204T
Q922		9A03747200	TR., KVTKSR1204T
RL01	⚠	9A04879000	RELAY,4A004ZU
R831-R834	⚠	9A05337700	R, CEMENT 2CJR27
R928,R929	⚠	9A05338000	R, METAL 1ANJ100H
S901		9A01393800	SW, SP

FUSE PCB ASSY (DC-D1800)

Ref. No.		Part No.	Description
		9A05382400	FUSE PCB ASSY
		9A05307100	PCB, POWER
	⚠	9A05382600	SWITCH, SELECTOR
	⚠	9A05306900	FUSE F2.5A

SUB PCB ASSY (DC-D2200/DC-D1800)

Ref. No.	Part No.	Description
AT-29	9A05334200	SUB PCB ASSY
	9A05340000	AMP/TUNER SUB PCB
	9A05327100	GUIDE , FLT
C230	9A05316600	CAP , GOLD EECS5R5V104
D201-D204	9A01390600	DIODE,1N4148T
D205,D206	9A01390500	DIODE,1N4148MT
D215,D216	9A01390500	DIODE,1N4148MT
D220	9A05194400	DIODE,ZENER UZ10BMT
D230-D232	9A05195000	LED,342VCF02T085 LED
FLT1	9A05316700	F.I.P 14AM6R
FLT2	9A05316800	F.I.P FIP16AW21Y
IC21	9A05189300	IC,ANAM1097T
IC22	9A05189200	IC,ANAM1076AE
IC23	9A05189900	IC,XR1091ECP
IC24	9A05317300	I.C RE5VA30CC
JK91	9A05316900	JACK HTJ064-05BG
JW11	9A05343000	WIRE(BLUE , WRAPING)
L201	9A03746700	COIL
Q201	9A05198800	TR,KSR2204T
Q202	9A03745000	TR., KVTKSC2785YT
Q203	9A03745100	TR., KVTKSA1175YT
Q204,Q205	9A03745000	TR., KVTKSC2785YT
Q206,Q207	9A03811700	TR., 2SD1021Y
Q208	9A05197100	TR,KSR2210T
Q209-Q213	9A05198800	TR,KSR2204T
Q214	9A05196900	TR,KSR1206T
Q731,Q732	9A03747300	TR., KVTKSB811YT
Q733,Q734	9A03811700	TR., 2SD1021Y
Q735-Q737	9A05196900	TR,KSR1206T
Q738	9A03811700	TR., 2SD1021Y
RS01	9A04882900	IC,HYBRID SBX1610M2
R950,R951	9A05338200	R, METAL 1ANJ391H
R951	9A05338200	R, METAL 1ANJ391H
S201-S216	9A04882500	SW,TACT
S220	9A04882500	SW,TACT
VR21	9A05198100	R,VARIABLE 1C04B104Z
VR22	9A05198200	R,VARIABLE 3C13W104Z
VR71	9A05198000	VR,MOTOR AB04B104Z
X201	9A05188800	CRYSTAL,
X202	9A05192900	CRYSTAL,
X203	9A05193000	CRYSTAL,

TUNER PCB ASSY (DC-D2200/DC-D1800)

Ref. No.	Part No.	Description
	9A05334100	TUNER PCB ASSY
	9A05339900	PCB , TUNER
	9A04875900	TERMINAL,ANT
	9A05334000	TUNER PACK
BPF1	9A05195100	B.P.F.,BPMB8
CFT1	9A05332200	COIL , AM IF
CF01,CF02	9A01407600	CERAMIC FILTER,FM 10.7MHZ
CT01	9A01405900	C,VARIABLE 20PF A020S12
C114	9A01507300	C,SEMI-CON 470PF/50V
D101	9A01405200	DIODE,KV1236Z
D102-D104	9A01390500	DIODE,1N4148MT
D105	9A01390600	DIODE,1N4148T
IC11	9A05189600	IC,LA1851N
IC12	9A04323300	IC,LM7001
L102	9A05332100	COIL , AM ANT 2B010Z
L103	9A05332500	COIL , AM OSC 2B008Z
L106	9A05332700	COIL A472KW
L107	9A04883400	COIL,
L130	9A04875000	COIL,FILTER
L131	9A05332600	COIL A183KWCZ
Q101,Q102	9A05197300	TR,KTC3192OT
Q103,Q106	9A05197100	TR,KSR2210T
Q104	9A05197000	TR,KSR1210T
Q105,Q107	9A03747200	TR., KVTKSR1204T
Q114,Q115	9A03745000	TR., KVTKSC2785YT
Q116	9A03747200	TR., KVTKSR1204T
Q117,Q123	9A05198800	TR,KSR2204T
Q118,Q125	9A05197000	TR,KSR1210T
Q119,Q120	9A03745000	TR., KVTKSC2785YT
Q121,Q122	9A03811700	TR., 2SD1021Y
Q124	9A03745100	TR., KVTKSA1175YT
S101	9A04882400	SW,TACT
T101	9A05332300	COIL , FM DET 1
T102	9A05332400	COIL , FM DET 2
VR11	9A05317400	RES , SEMI FIXED EVNDJAA0
VR12	9A05317700	VR, SEMI FIX EVNDJAA03B24
X101	9A04874300	CRYSTAL,
X102	9A05317200	RESONATOR, CERAMIC CSB45

CASSETTE DECK

MEASUREMENT AND ADJUSTMENT METHODS

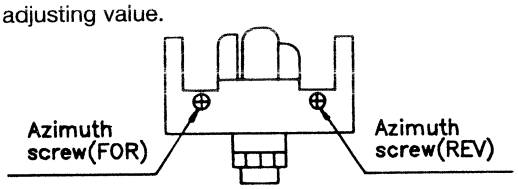
Measurement condition
- Dolby NR position : OFF
- Make sure heads are clean
- Make sure capstan and pressure roller are clean.

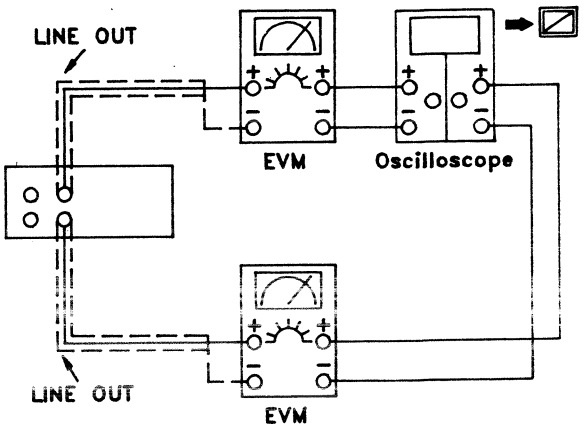
Measuring instruments
- EVM(Electronic Voltmeter)
- Oscilloscope
- Frequency counter
- AF Oscillator
- DC Voltmeter
- ATT (Attenuator)
- Resistor (600 ohm)

Test tape
- Head azimuth(10KHz, -10dB): MTT-114N
- Tape speed(3KHz, -10dB): MTT-111N
- Playback frequency response (125Hz, 1KHz, 10KHz, -10dB)
- Playback gain: MTT-150
- Blank tape
  Normal blank tape: MTT-5511
  CrO_2 blank tape: MTT-5561
  Metal blank tape: MTT-5571

HEAD AZIMUTH ADJUSTMENT

1. Test equipment connections are shown in fig. 1.
2. Playback the head Azimuth test tape and requlate the angle adjust screw so that the outputs of L-ch and R-ch are maximized. (When the adjusting positions are different with L-ch and R-ch, find a position where the outputs of L-ch and R-ch are balanced and then make the adjustment.)
3. At the same time, obtain a lisajous waveform and eliminate phase deflection.
4. After the adjustment, apply screw lock to the angle adjusting value.



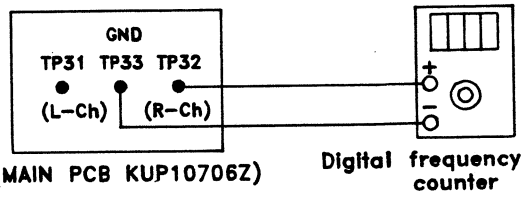


(FIG. 1)

TAPE SPEED ADJUSTMENT

High Speed
1. Test equipment connections are shown in fig. 2.
2. Connects the lead wire between TP81 and GND.
3. Playback the middle part of the test tape.
4. Adjusts the high speed.

Adjustment point	DECK Ⅱ : VR81
	DECK Ⅰ : VR83
Standard Value	6,000Hz ± 80Hz



(FIG. 2)

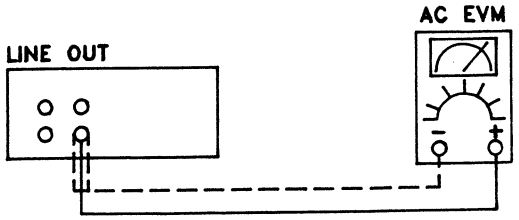
Normal Speed
1. Disconnects the lead wire between TP81 and GND.
2. Playback the middle part of the test tape.

Adjustment point	DECK Ⅱ : VR82
	DECK Ⅰ : VR84
Standard Value	3,000Hz ± 40Hz

PLAYBACK GAIN ADJUSTMENT

1. Test equipment connections are shown in fig. 3.
2. Playback the playback gain test tape (MTT-150)
3. Adjust playback gain.

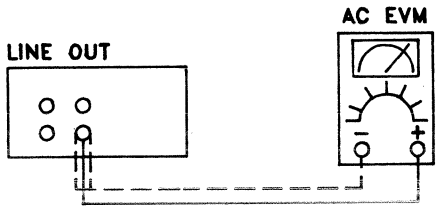
Adjustment point	L ch	Rch
DECK I	VR01	VR02
DECK II	VR03	VR04
Standard Value	548mV	



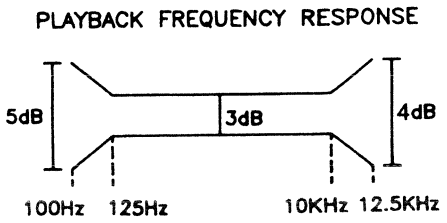
(FIG. 3)

PLAYBACK FREQUENCY RESPONSE

1. Test equipment connections are shown in fig. 4.
2. Playback the playback frequency response test tape.
3. Check that the frequency response is within the range shown in Fig. 5. for both L-ch and R-ch.



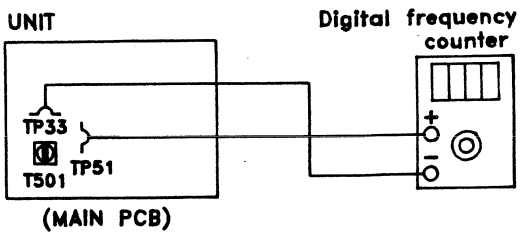
(FIG. 4)



(FIG. 5)

BIAS FREQUENCY ADJUSTMENT

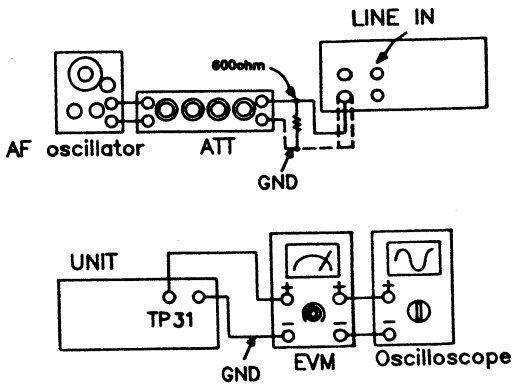
1. Test equipment connections are shown in fig. 6.
2. Load a CrO_2 blank test tape.
3. Press the record and pause button.
4. Adjusts T501 for 105KHz frequency counter reading.



(FIG. 6)

OVERALL GAIN ADJUSTMENT

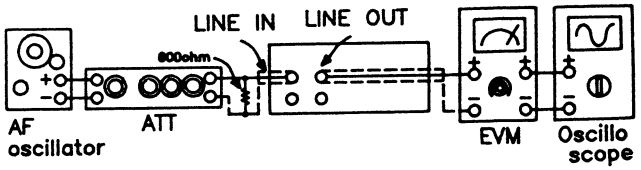
1. Test equipment connections are shown in fig. 7.
2. Insert the normal reference blank tape.
3. Place UNIT into record mode.
4. Supply a 1KHz signal through ATT (-10dB) from AF oscillator to line in.
5. Adjust ATT until monitor level at TP31 (L-ch) or TP32 (R-ch) becomes 180mV.
6. Playback recorded tape and make sure that the out -put level at TP31 (L-ch) or TP32 (R-ch) becomes 180mV
7. If measured value is not 180mV, adjust it by using VR31(L-CH) or VR32 (R-CH).
8. Repeat from step (2).

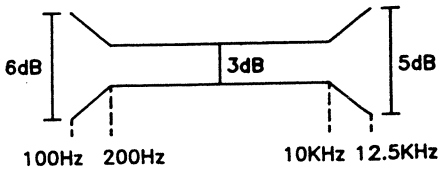


(FIG. 7)

OVERALL FREQUENCY RESPONSE

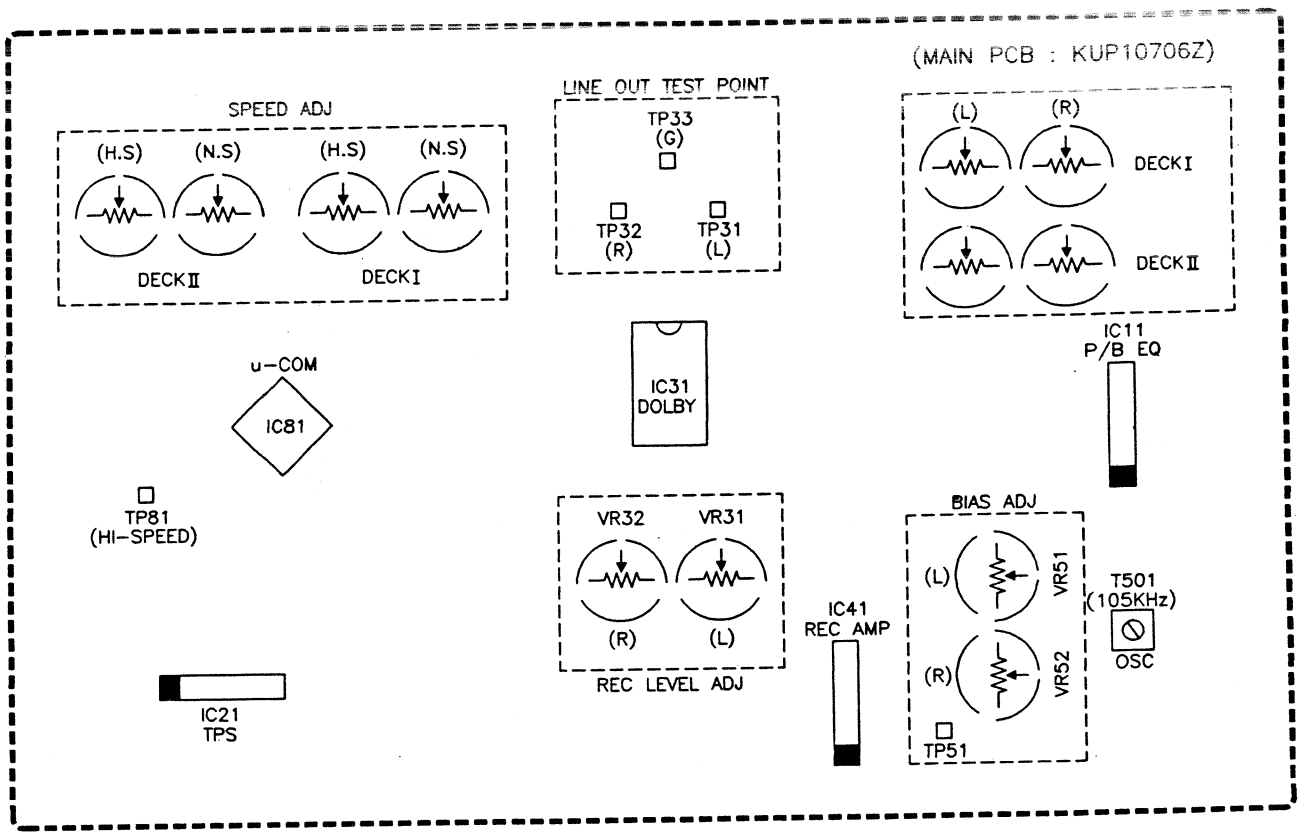
1. Set a normal blank tape (MTT-5511) and record by apply signal (100Hz, 1KHz, 10KHz) through ATT- from AF oscillator to line in (Line out Level: 33mV).
2. Playback the signal recorded in step 1, and check that the level of each output frequency in within the range shown in fig. 8 in comparison with the reference frequency (1KHz).
3. If it is not within the standard range adjust the bias current by using VR51 (L-CH) or VR52 (R-CH) so that the frequency level is within the standard.
   - Level up in high frequency range ... Increase the bias current.
   - Level down in high frequency range ... Decrease the bias current.
4. After that, increase the signal recorded on CrO_2 blank tape (MTT-5561) and metal blank tape (MTT-5571) up to 14KHz and adjust in the same way as mentioned above and check that the frequency level is within the range shown in Fig. 8.



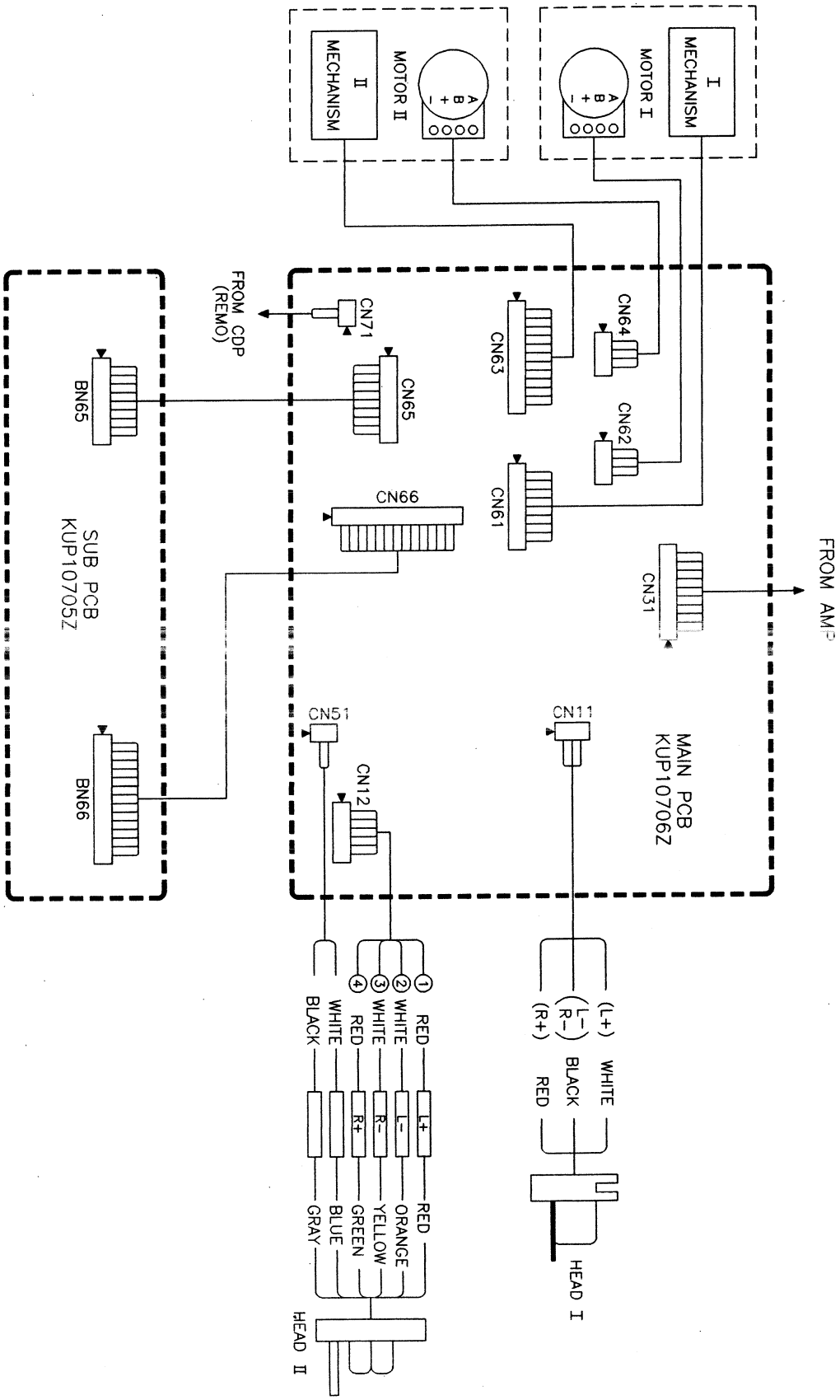


(FIG. 8)

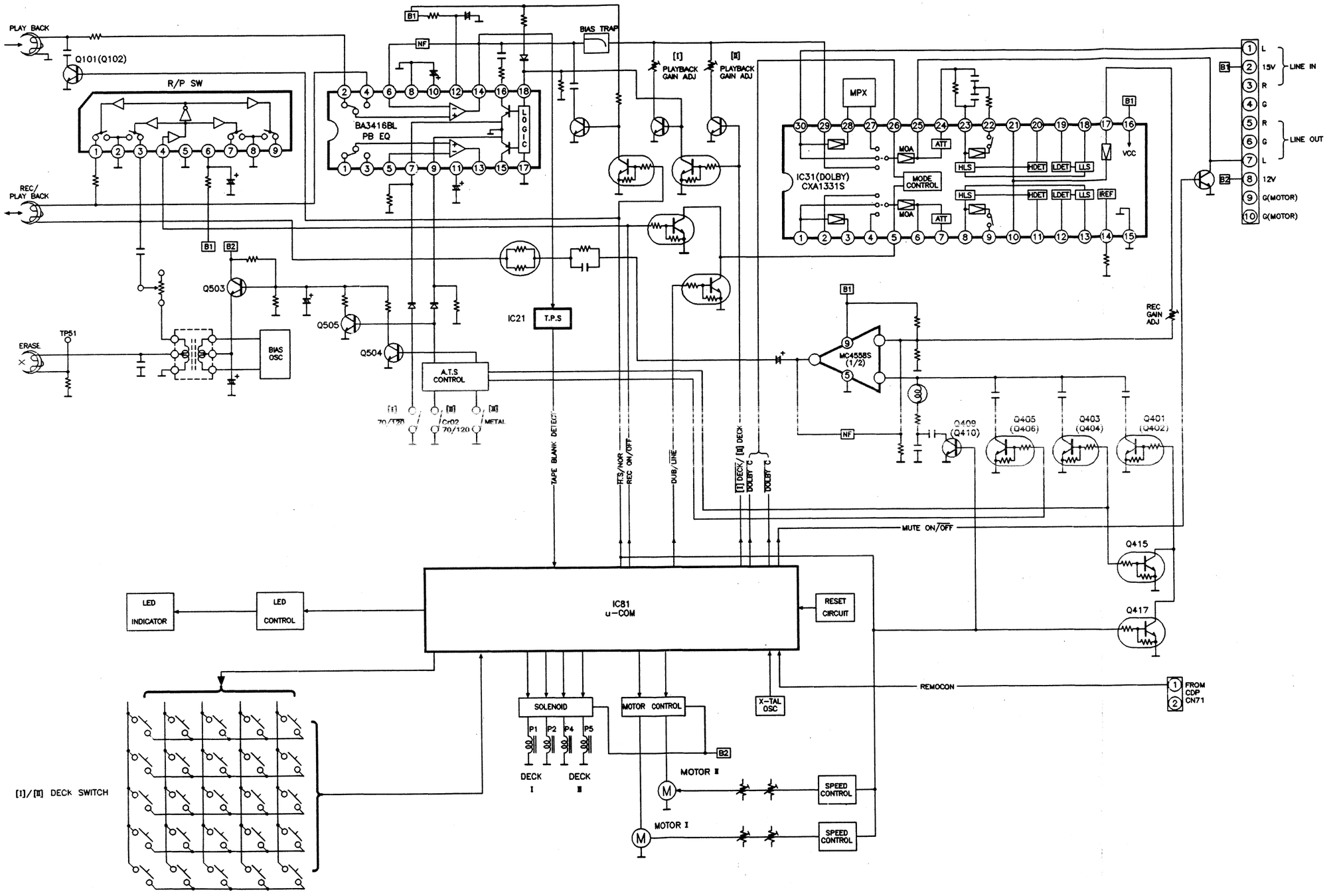
ADJUSTMENT POINT



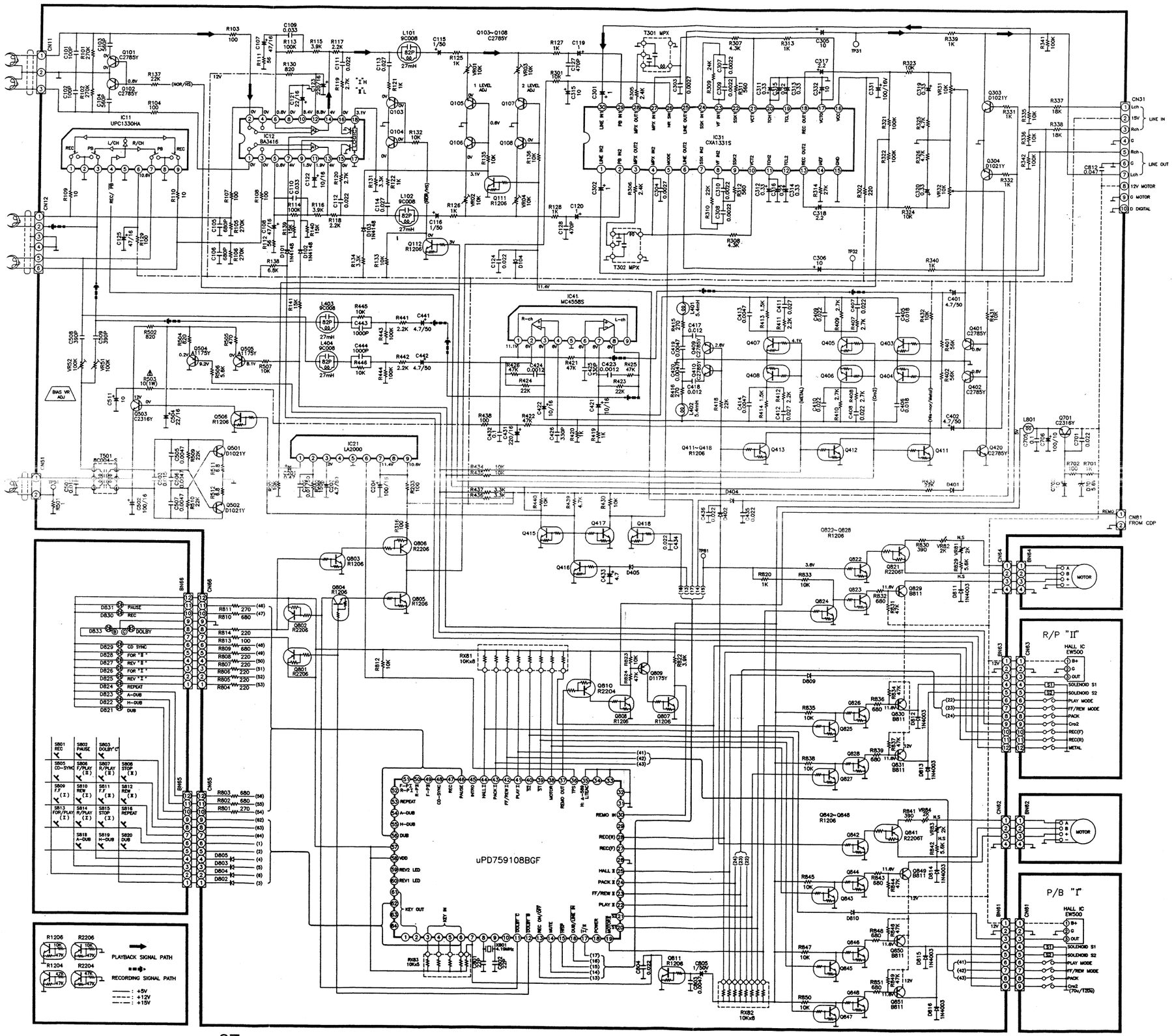
DECK WIRING DIAGRAM



DECK BLOCK DIAGRAM

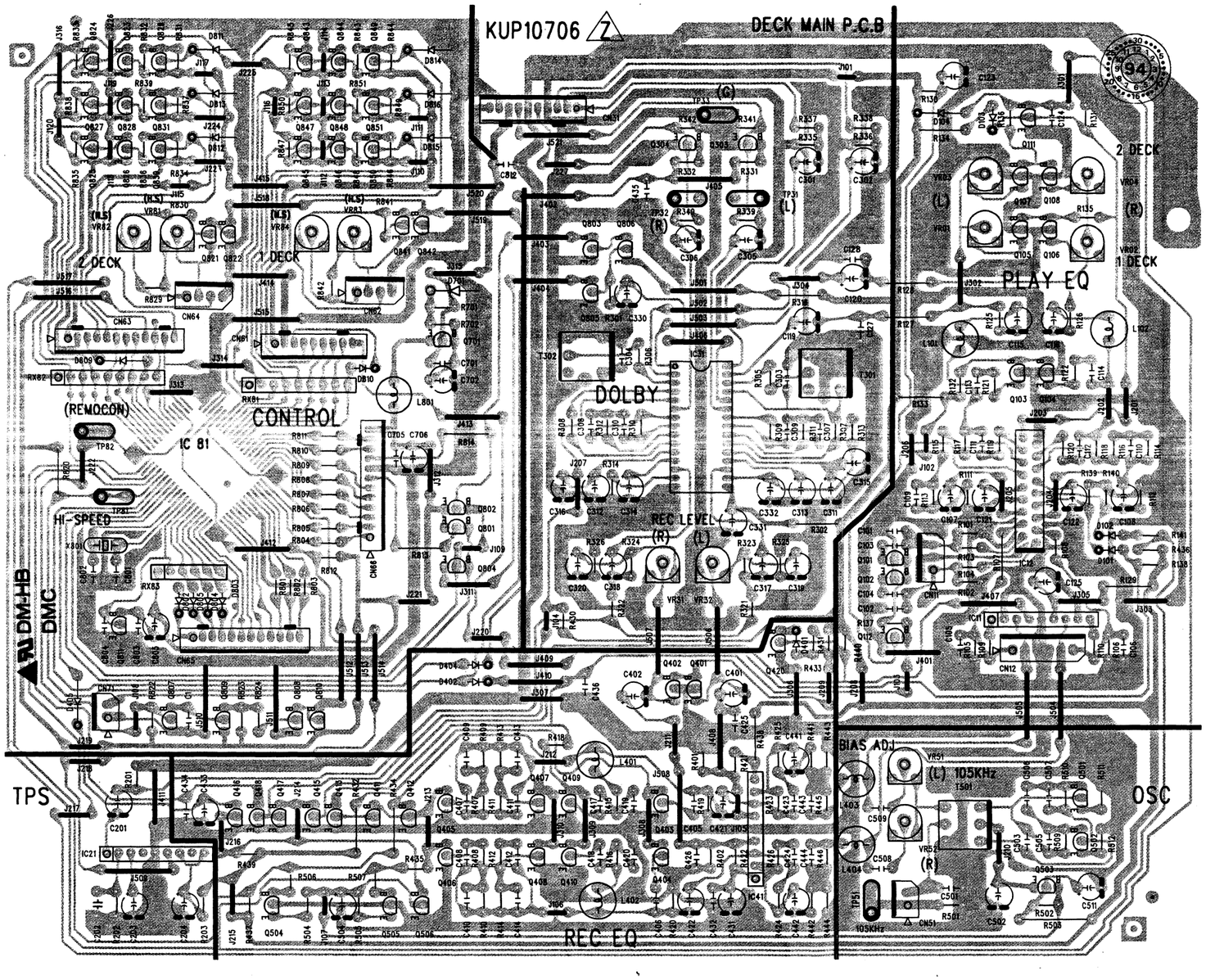


DECK SCHEMATIC DIAGRAM

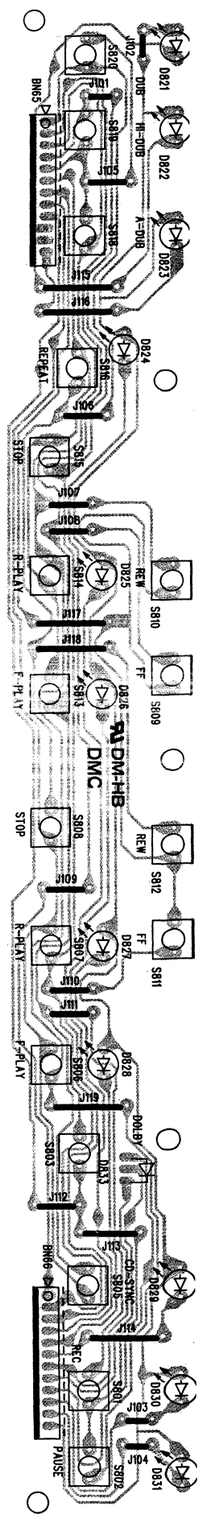


PRINTED CIRCUIT BOARDS

■ MAIN PCB



■ SUB PCB



DECK MECHANISM

EXPLODED VIEW-7 (CASSETTE MECHANISM SECTION)

Ref. No.	Part No.	Description	Remarks
1	9A05346800	CHASSIS-MAIN	
2	9A05348400	SHAFT-GEAR CAM	
3	9A05349000	SHAFT-ARM CAMP	
4	9A05348900	SHAFT-APSS	
5	9A05346500	BASE-CAPSTAN F	
6	9A05351300	SPRING PINCH F	
7	9A05349800	SCREW (PH+ M2 * 5)	
8	9A05316200	ASS'Y-ARM PINCH F	
9	9A05346600	BASE-CAPSTAN R	
10	9A05351400	SPRING-PINCH R	
11	9A05316300	ASS'Y-ARM PINCH R	
12	9A05346000	ARM-FWD	
13	9A05348500	SHAFT-GEAR P	
14	9A05347400	GEAR-FWD	
15	9A05351100	SPRING-ARM FWD	
16	9A05350100	WASHER (1.2 * 3.2 * T0.25	
17	9A05346100	ARM-RVS	
18	9A05347900	LEVER-AC	
19	9A05348600	SHAFT-LEVER AC	
20	9A05351000	SPRING-LEVER AC	
21	9A05351200	SPRING-CAM LOCK P	
22	9A05346200	ARM-CAM LOOK P	
23	9A05350500	WASHER (2 * 4 * T0.4)	
24	9A05347800	LEVER-APSS	
25	9A05348800	SHAFT-LEVER APSS	
26	9A05350900	SPRING-LEVER APSS	
27	9A05346400	BASE-HEAD	
28	9A05348200	PLATE-SELECTION	
29	9A05351500	SPRING-PINCH	
30	9A05346900	COLLAR-PS	
31	9A05349300	SCREW (CH+ M1.7 * 4)	
32	9A05346300	BASE-SUB HEAD	
33	9A05348700	SHAFT-BASE SUB HEAD	
34	9A05350800	SPRING-BASE HEAD	
35	9A05316100	ASS'Y-BRACKET HEAD	
36	9A05352600	HEAD-PLAY BACK	PLAYBACK I
	9A05352700	HEAD-REC & PLAY BACK	REC/PLAY II
37	9A05349100	SCREW (PH+ M1.6 * 7)	
38	9A05349500	SCREW (CH+ M2 * 5)	
39	9A05350700	SPRING BASE SUB	
40	9A05348100	PLATE-SPRING BH	
41	9A05347000	COLLAR-BASE HEAD	
42	9A05349900	SCREW (BH+ M2 * 5)	
43	9A05347500	GEAR-CAM P	
44	9A05351900	RING-E	
45	9A05347600	GEAR-CAM RF	
46	9A05315800	ASS'Y-CHASSIS REEL	
47	9A05351800	RING-CS	
48	9A05352900	SOLENOID	
49	9A05349600	SCREW (PH+ M2 * 3.5)	
50	9A05350600	SPRING-BACK TENSION F	
51	9A05316400	ASS'Y-REEL F	
52	9A05316500	ASS'Y-REEL R	
53	9A05350200	WASHER (1.2 * 3.5 * T0.35	
54	9A05348000	PCB-CONTROL	
55	9A05352400	CONNECTOR (9 PIN)	PLAYBACK I
	9A05352500	CONNECTOR (12 PIN)	REC/PLAY II

EXPLODED VIEW-7 (CASSETTE MECHANISM SECTION)

Ref. No.	Part No.	Description	Remarks
56	9A05352100	SWITCH (FF/REW)	
57	9A05352200	SWITCH (PLAY)	
58	9A05352300	SWITCH (SELECT TAPE)	
59	9A05347700	HOLDLR-SENSOR	
60	9A05352000	HALL IC	
61	9A05349700	SCREW (PH+ 2 * 4)	
62	9A05347200	CAP-ARM RF	
63	9A05350000	WASHER (2.3 * 3.5 * T0.25	
64	9A05315900	ASS'Y-FLYWHEEL F	
65	9A05350400	WASHER (1.9 * 4 * T0.5)	
66	9A05316000	ASS'Y-FLYWHEEL R	
67	9A05350300	WASHER (1.6 * 3.5 * T0.5)	
68	9A05351700	BELT (70.4)	
69	9A05351600	SPRING-PLATE	
70	9A05347300	COVER-SWITCH	
71	9A05346700	BRAKECT-MOTOR	
72	9A05352800	MOTOR (EG530YD2BH)	
73	9A05348300	PULLEY-MOTOR D	
74	9A05347100	COSHION-MOTOR	
75	9A05349200	SCREW (BH+ M2.6 * 4)	
76	9A05349400	SCREW (CH+ M2 * 4)	

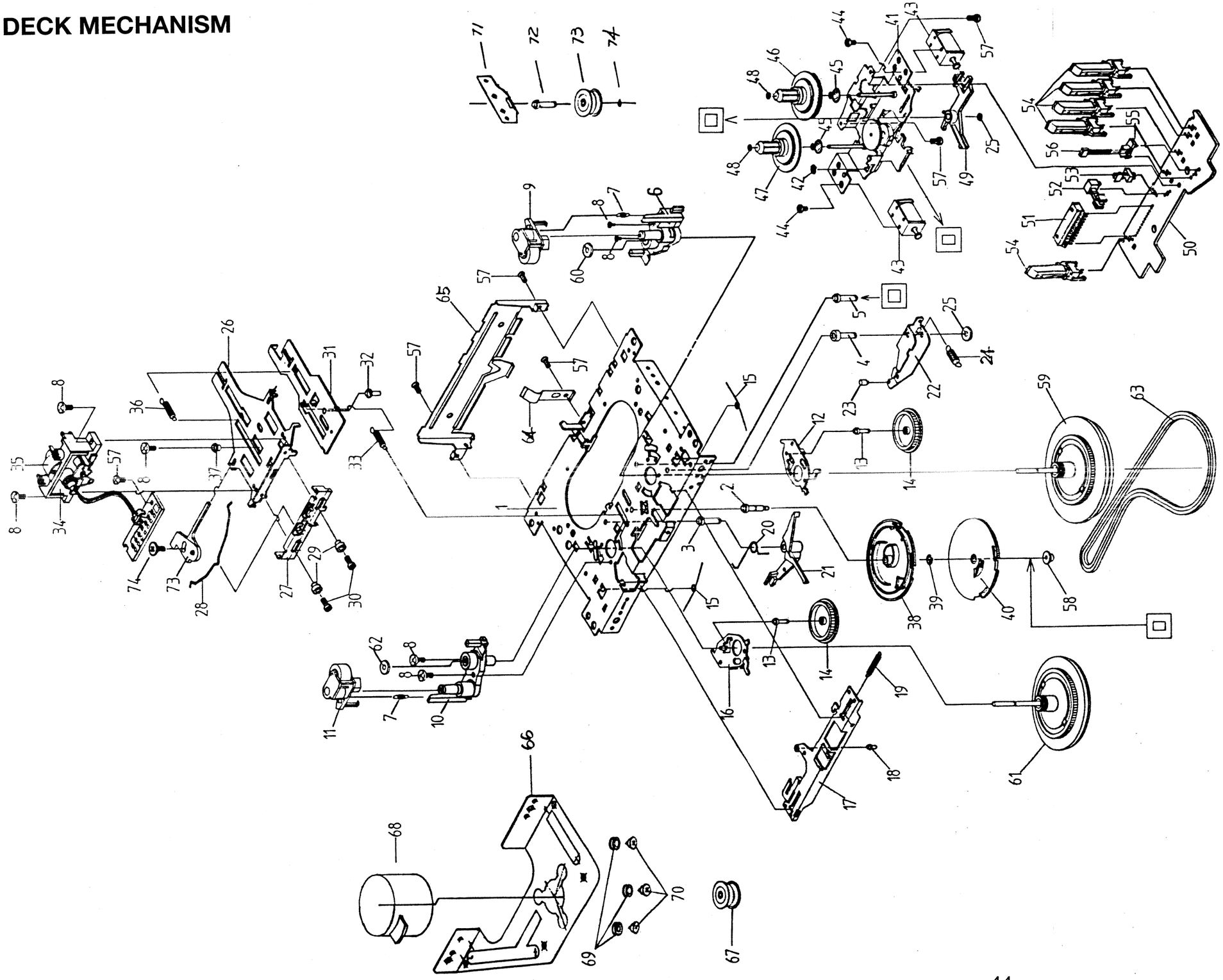
INCLUDED ACCESSORIES

Ref. No.	Part No.	Description	Remarks
	9A05193500	REMOC0N ASSY,	
	9A05032000	OWNER'S MANUAL,E	
	9A05032100	OWNER'S MANUAL,D [E]	
	9A05032200	OWNER'S MANUAL,F [E]	
	9A05032300	OWNER'S MANUAL,I [E]	
	9A04883100	ANT,FM WIRE	
	9A05338400	AM LOOP ANT ASS'Y	

LS-D2200 SPEAKER

Ref. No.	Part No.	Description	Remarks
	9A05308500	FRONT PANEL(R)	
	9A05308600	FRONT PANEL(L)	
	9A05302700	NET SHEET	
	9A05302800	RUBBER HOLDER	
	9A05302900	PIEZO	
	9A05303000	TWEETER	
	9A05303100	WOOFER	
	9A05303200	BACK LABEL	
	9A05303300	SCREW	
	9A05303400	PUSH TERMINAL	

DECK MECHANISM



ELECTRICAL PARTS LIST

CAUTION : A ⚠ in the schematic diagram and the parts list designates components which have special characteristics important to safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.
Before replacing any of it these components, read carefully the PRODUCT SAFETY NOTICE on page 2 in this manual. Do not harm the safety of the unit through improper servicing.

■ NumberingSystem of Resistor

Example

KRD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor	Wattage	Tolerence
KRD:Carbon KRG:Metal Oxide KRF:Metal Cement	20:1/5W 25:1/4W 50:1/2W 12:1/2W 1:1W 2:2W 3:3W	F:=±1% J:=±5% K:=±10%

■ Numbering system of Capacitor

Example

KCKR	1H	101	K	B
Type	Voltage	Value	Tolerance	Peculiarity

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
KCB:Ceramic KCC:Ceramic KCK:Ceramic KCFR:Semiconductor KCQI:Polyster KCQP:Polypropylene KCQS:Polystyrol	OJ:6.3V 1A:10V 1C:16V 1E:25V 1H:50V 1V:35V	1H:50V DC 1:125V DC KC:400V AC D25V DC	C:±0.25pF G:±2% J:±5% K:±10% Z:±80%, -20%

DECK MAIN PCB ASSY (DC-D2200)

Ref. No.	Part No.	Description
	9A05357600	DECK MAIN PCB ASSY
	9A05340500	PCB , MAIN
D101	9A01390500	DIODE,1N4148MT
D104	9A01390600	DIODE,1N4148T
D401	9A01390500	DIODE,1N4148MT
D405	9A01390600	DIODE,1N4148T
D701	9A05194500	DIODE,ZENER UZ5.6BMT
D802-D805	9A01390500	DIODE,1N4148MT
D809	9A01390600	DIODE,1N4148T
D810	9A01390500	DIODE,1N4148MT
D811-D816	9A05194700	DIODE,1N4003ST
IC11	9A03746200	IC,UPC1330HA
IC12	9A01421900	IC, KVIBA3416BL
IC21	9A04882200	IC,LA2000
IC31	9A05198900	IC,CXA1331S
IC41	9A05195800	IC,MC4558S
IC81	9A05189400	IC,ANAM1098D
L101	9A03746800	COIL, TRAP
L401	9A04883400	COIL
L403	9A03746800	COIL, TRAP
L801	9A03746700	COIL
Q101-Q108	9A03745000	TR., KVTKSC2785YT
Q111,Q112	9A05196900	TR,KSR1206T
Q303,Q304	9A03811700	TR., 2SD1021Y
Q401,Q402	9A03745000	TR., KVTKSC2785YT
Q403,Q408	9A05196900	TR,KSR1206T
Q409,Q410	9A03745000	TR., KVTKSC2785YT
Q411-Q413	9A05196900	TR,KSR1206T
Q415-Q418	9A05196900	TR,KSR1206T
Q420	9A03745000	TR., KVTKSC2785YT
Q501,Q502	9A03811700	TR., 2SD1021Y
Q503	9A05196800	TR,KSC2316YT
Q504,Q505	9A03745100	TR., KVTKSA1175YT
Q506	9A05196900	TR,KSR1206T
Q701	9A05196800	TR,KSC2316YT
Q801,Q802	9A03745200	TR., KVTKSR2206T
Q803-Q805	9A05196900	TR,KSR1206T
Q806	9A03745200	TR., KVTKSR2206T
Q807,Q808	9A05196900	TR,KSR1206T
Q809	9A03745100	TR., KVTKSA1175YT
Q810	9A05198800	TR,KSR2204T
Q811	9A05196900	TR,KSR1206T
Q821	9A03745200	TR., KVTKSR2206T
Q822-Q828	9A05196900	TR,KSR1206T
Q829-Q831	9A03747300	TR., KVTKSB811YT
Q841	9A03745200	TR., KVTKSR2206T
Q842-Q848	9A05196900	TR,KSR1206T
Q849-Q851	9A03747300	TR., KVTKSB811YT
RX81	9A05337900	RES , NETWORK SN8X103J
RX83	9A05337800	RES , NETWORK SN5X103J
R503	9A05338000	R, METAL 1ANJ100H
T301	9A01422800	COIL, MPX
T501	9A03746600	COIL, BIAS
VR01-VR04	9A05317400	RES , SEMI FIXED EVNDJAA0
VR31,VR32	9A05317400	RES , SEMI FIXED EVNDJAA0
VR51,VR52	9A05317500	RES , SEMI FIXED EVNDJAA0
VR81-VR84	9A05317600	RES , SEMI FIXED EVNDJAA0
X801	9A04874200	CRYSTAL, DC-D2100

DECK MAIN PCB ASSY (DC-D1800)

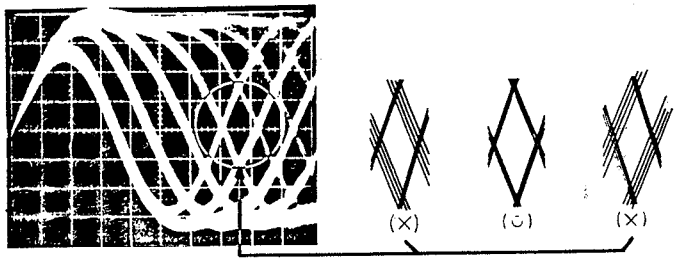
Ref. No.	Part No.	Description
	9A05334700	DECK MAIN PCB ASS'Y
	9A05340500	PCB , MAIN
D101-D103	9A01390500	DIODE,1N4148MT
D104	9A01390600	DIODE,1N4148T
D401,D402	9A01390500	DIODE,1N4148MT
D404	9A01390500	DIODE,1N4148MT
D405	9A01390600	DIODE,1N4148T
D701	9A05194500	DIODE,ZENER UZ5.6BMT
D802-D805	9A01390500	DIODE,1N4148MT
D809	9A01390600	DIODE,1N4148T
D810	9A01390500	DIODE,1N4148MT
D811-D816	9A05194700	DIODE,1N4003ST
IC11	9A03746200	IC,UPC1330HA
IC12	9A01421900	IC, KVIBA3416BL
IC21	9A04882200	IC,LA2000
IC31	9A05198900	IC,CXA1331S
IC41	9A05195800	IC,MC4558S
IC81	9A05189400	IC,ANAM1098D
L101	9A03746800	COIL, TRAP
L401	9A04883400	COIL,
L403	9A03746800	COIL, TRAP
L801	9A03746700	COIL
Q101-Q108	9A03745000	TR., KVTKSC2785YT
Q111,Q112	9A05196900	TR,KSR1206T
Q303,Q304	9A03811700	TR., 2SD1021Y
Q401,Q402	9A03745000	TR., KVTKSC2785YT
Q403-Q408	9A05196900	TR,KSR1206T
Q409-Q410	9A03745000	TR., KVTKSC2785YT
Q411-Q413	9A05196900	TR,KSR1206T
Q415-Q418	9A05196900	TR,KSR1206T
Q420	9A03745000	TR., KVTKSC2785YT
Q501,Q502	9A03811700	TR., 2SD1021Y
Q503	9A05196800	TR,KSC2316YT
Q504,Q505	9A03745100	TR., KVTKSA1175YT
Q506	9A05196900	TR,KSR1206T
Q701	9A05196800	TR,KSC2316YT
Q801,Q802	9A03745200	TR., KVTKSR2206T
Q803-Q805	9A05196900	TR,KSR1206T
Q806	9A03745200	TR., KVTKSR2206T
Q807,Q808	9A05196900	TR,KSR1206T
Q808	9A05196900	TR,KSR1206T
Q809	9A03745100	TR., KVTKSA1175YT
Q810	9A05198800	TR,KSR2204T
Q811	9A05196900	TR,KSR1206T
Q821	9A03745200	TR., KVTKSR2206T
Q822-Q828	9A05196900	TR,KSR1206T
Q829-Q831	9A03747300	TR., KVTKSB811YT
Q841	9A03745200	TR., KVTKSR2206T
Q842-Q848	9A05196900	TR,KSR1206T
Q849-Q851	9A03747300	TR., KVTKSB811YT
RX81	9A05337900	RES , NETWORK SN8X103J
RX83	9A05337800	RES , NETWORK SN5X103J
R503	9A05338100	RES , METAL OXIDE FILM 1A
T301	9A01422800	COIL, MPX
T501	9A03746600	COIL, BIAS
VR01-VR04	9A05317400	RES , SEMI FIXED EVNDJAA0
VR31,VR32	9A05317400	RES , SEMI FIXED EVNDJAA0
VR51,VR52	9A05317500	RES , SEMI FIXED EVNDJAA0
VR81-VR84	9A05317600	RES , SEMI FIXED EVNDJAA0
X801	9A04874200	CRYSTAL,

DC-D2200 (CDP)

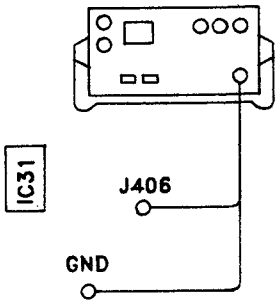
ADJUSTMENT

1. FOCUS OFF SET ADJUSTMENT

1. Test equipment connection is shown in Fig 1.1.
2. Play the test disc.
3. Adjust VR02 so that the eye pattern of RF Signal is open widest. (Fig1.2)



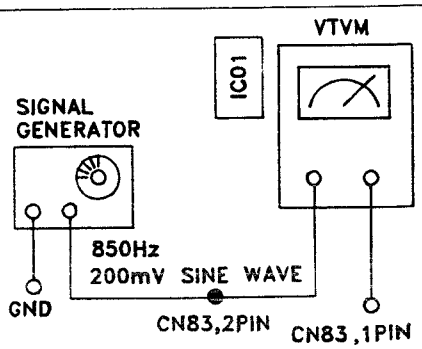
(FIG. 1.2)



(FIG. 1.1)

2. FOCUS GAIN ADJUSTMENT

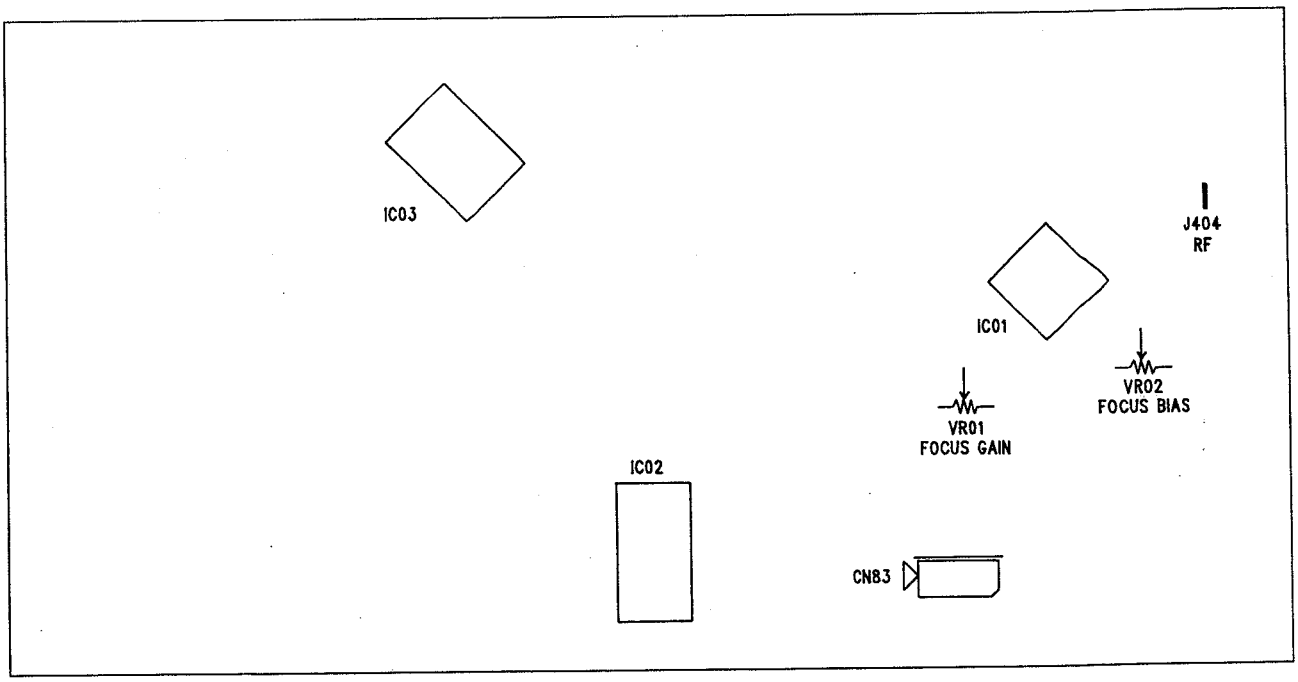
1. Test equipment connection is shown in Fig 2.
2. Play the test disc.
3. Adjust VR01 until monitor level at VTVM becomes 150mV. (AC)



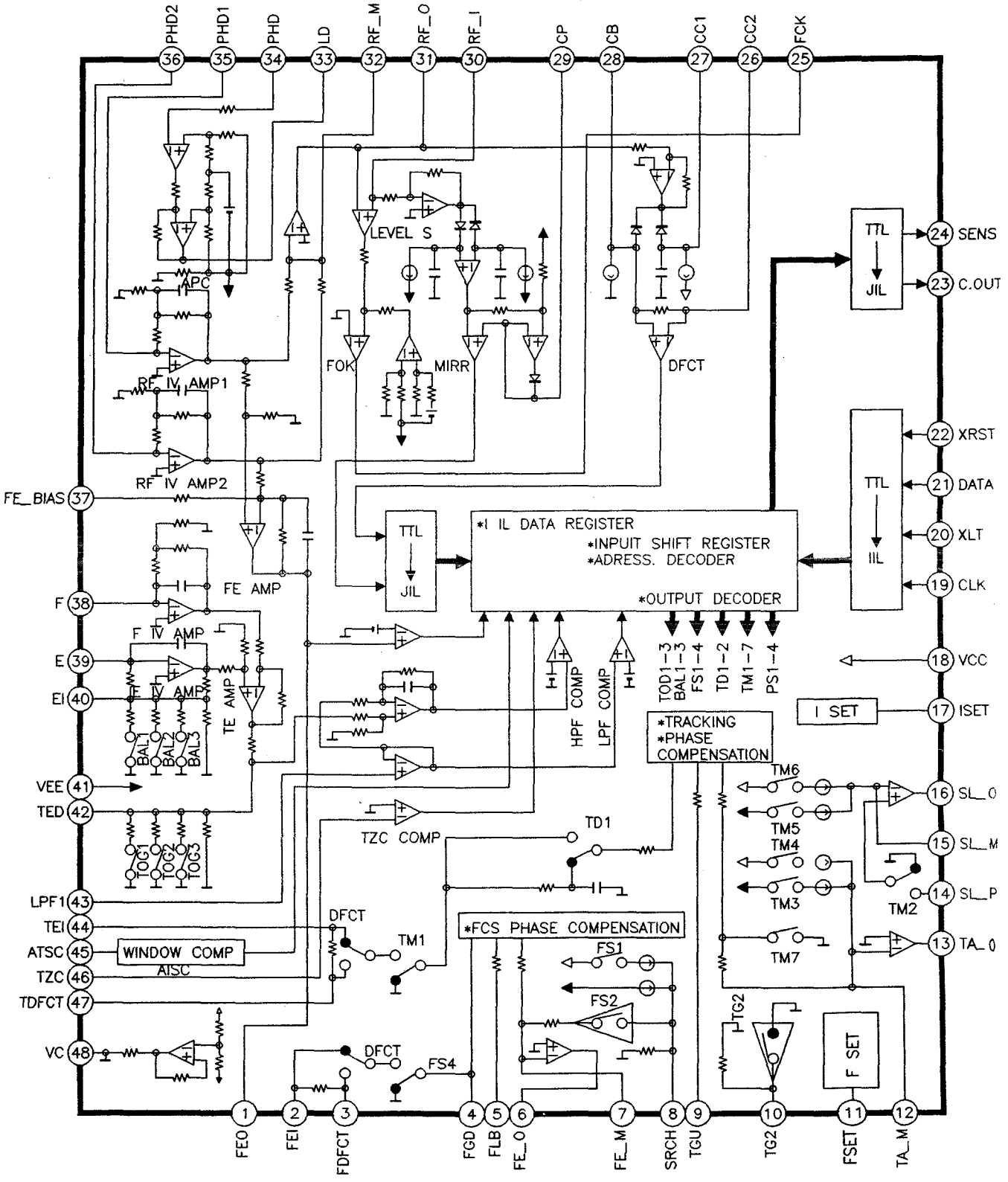
(FIG. 2)

LOCATIONS OF TEST (ADJUSTMENT) POINTS

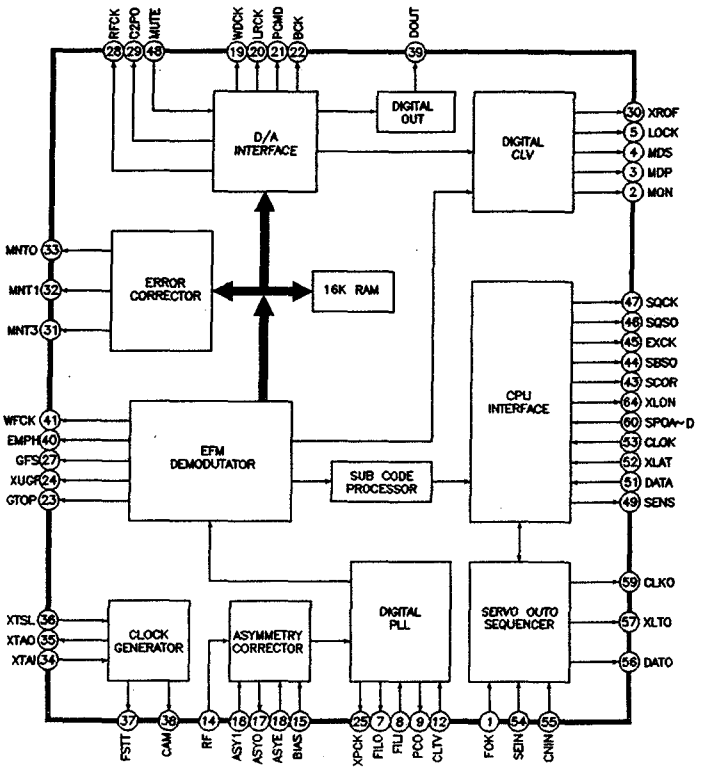
KUPI0708Z



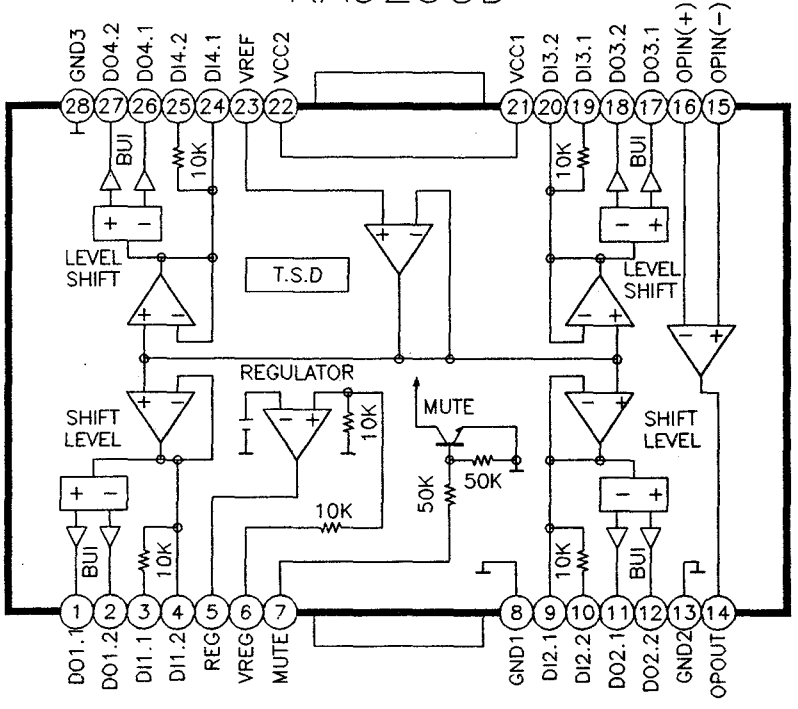
CXA1782 BQ

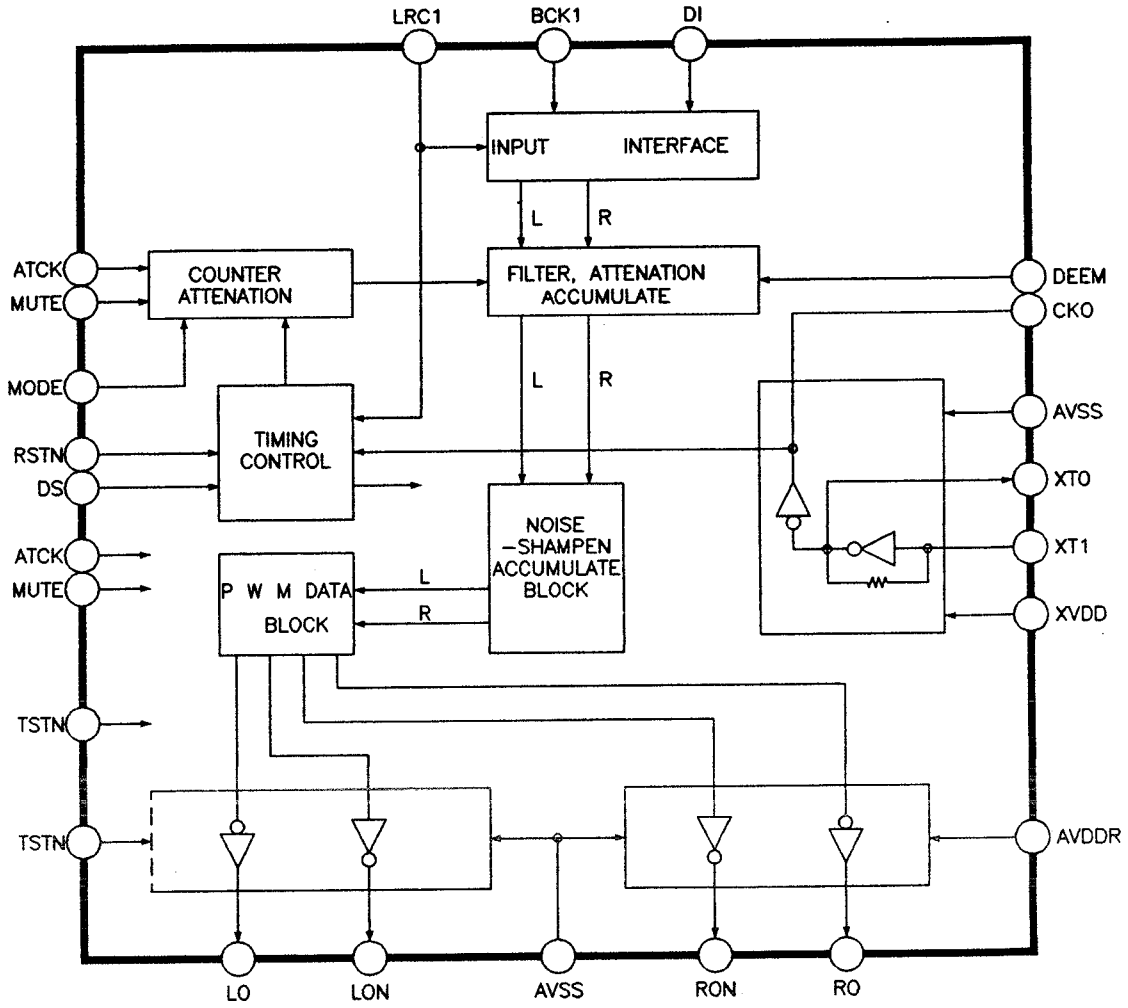

PHD2
PHD1
PHD
LD
RF_M
RF_O
RF_I
CP
CB
CC1
CC2
FCK
36
35
34
33
32
31
30
29
28
27
26
25
APC
LEVEL S
FOK
MIRR
DFCT
RF I/V AMP1
RF I/V AMP2
FE_BIAS 37
FE AMP
F 38
F I/V AMP
E 39
I/V AMP
EI 40
TE AMP
BAL1
BAL2
BAL3
VEE 41
TED 42
TOG1
TOG2
TOG3
LPF1 43
TEI 44
ATSC 45
TZC 46
TDFCT 47
VC 48
WINDOW COMP
AISC
TTL
JIL
*I IL DATA REGISTER
*INPUIT SHIFT REGISTER
*ADRESS. DECODER
*OUTPUT DECODER
TTL
IIL
24 SENS
23 C.OUT
22 XRST
21 DATA
20 XLT
19 CLK
18 VCC
17 ISET
I SET
TOD1-3
BAL1-3
FS1-4
TD1-2
TM1-7
PS1-4
HPF COMP
LPF COMP
*TRACKING
*PHASE
COMPENSATION
TM6
TM5
TM4
TM3
TM2
TM7
16 SL_O
15 SL_M
14 SL_P
13 TA_O
TZC COMP
TD1
DFCT
TM1
*FCS PHASE COMPENSATION
FS1
FS2
FS4
DFCT
TG2
F SET
1 FEO
2 FEI
3 FDFCT
4 FGD
5 FLB
6 FE_O
7 FE_M
8 SRCH
9 TGU
10 TG2
11 FSET
12 TA_M

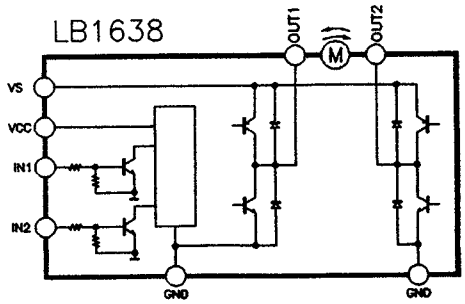
CXD 2507Q



KA9258D




LRC1
BCK1
DI
INPUT
INTERFACE
L
R
ATCK
MUTE
COUNTER ATTENATION
FILTER, ATTENATION ACCUMULATE
DEEM
CKO
MODE
TIMING CONTROL
AVSS
RSTN
DS
XTO
XT1
NOISE -SHAMPEN ACCUMULATE BLOCK
ATCK
MUTE
P W M DATA BLOCK
XVDD
TSTN
TSTN
AVDDR
LO
LON
AVSS
RON
RO

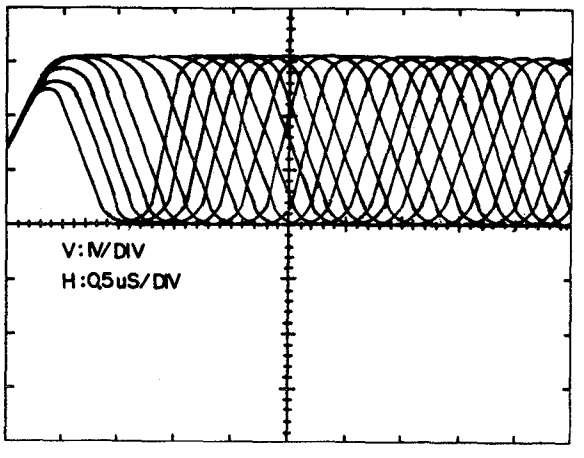

LB1638
OUT1
OUT2
M
VS
VCC
IN1
IN2
GND
GND

WAVE FORMS

1 RF

TEST POINT : J406
RF SUMMING AMP. OUTPUT

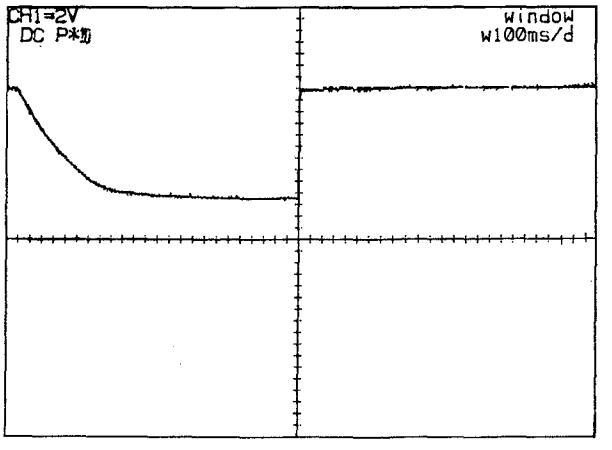
P-P	:	1.2V	RISE	:	660ns
MAX	:	--------	EALL	:	680ns
MIN	:	--------	FREQ	:	149.7KHz
RMS	:	50mV	PERIOD	:	6.68µs
AVG	:	240mV	+WIDTH	:	3.96µs
UNDSHT	:	3%	-WIDTH	:	2.72µs
OVRSHT	:	19%			



2 RESET

TEST POINT : Q204 Collector
Reset at "L"

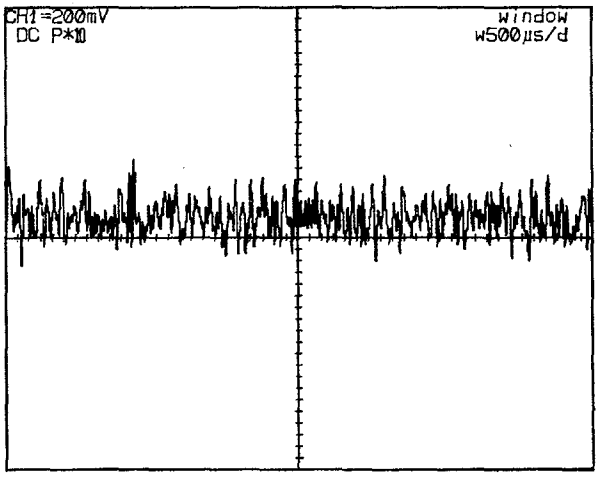
P-P	:	3.92V	RISE	:	3ms
MAX	:	5.28V	EALL	:	139ms
MIN	:	1.36V	FREQ	:	--------
RMS	:	4.08V	PERIOD	:	--------
AVG	:	3.68V	+WIDTH	:	--------
UNDSHT	:	2%	-WIDTH	:	424ms
OVRSHT	:	2%			



3 FE-O

TEST POINT : IC101-PIN6
Focus drive output

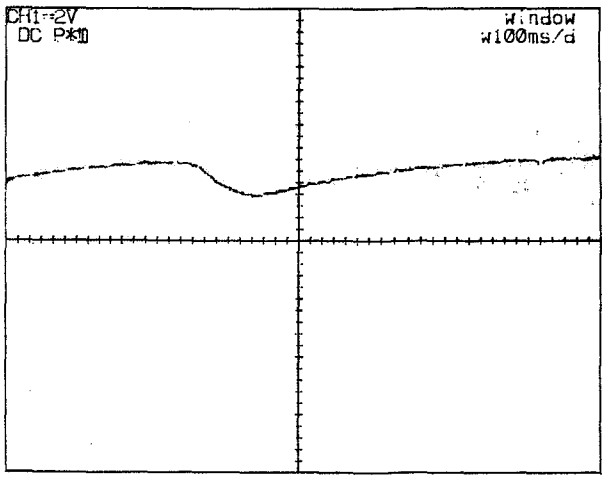
P-P	:	368mV	RISE	:	10µs
MAX	:	320mV	EALL	:	85µs
MIN	:	-48mV	FREQ	:	7.142KHz
RMS	:	132mV	PERIOD	:	140µs
AVG	:	112mV	+WIDTH	:	50µs
UNDSHT	:	43%	-WIDTH	:	90µs
OVRSHT	:	57%			



4 SRCH

TEST POINT : IC01-PIN8
PIN for providing a time constant to generate the focus search waveform

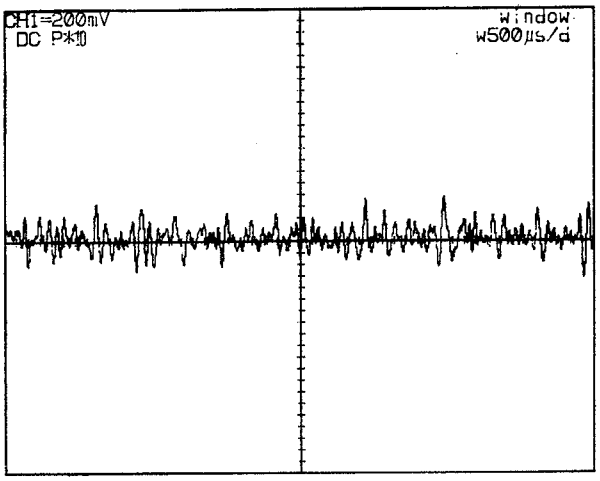
P-P	:	1.44V	RISE	:	244ms
MAX	:	2.96V	EALL	:	52ms
MIN	:	1.52V	FREQ	:	--------
RMS	:	2.40V	PERIOD	:	--------
AVG	:	2.32V	+WIDTH	:	--------
UNDSHT	:	15%	-WIDTH	:	232ms
OVRSHT	:	23%			



5 TA-O

TEST POINT : IC01-PIN13
Tracking drive output

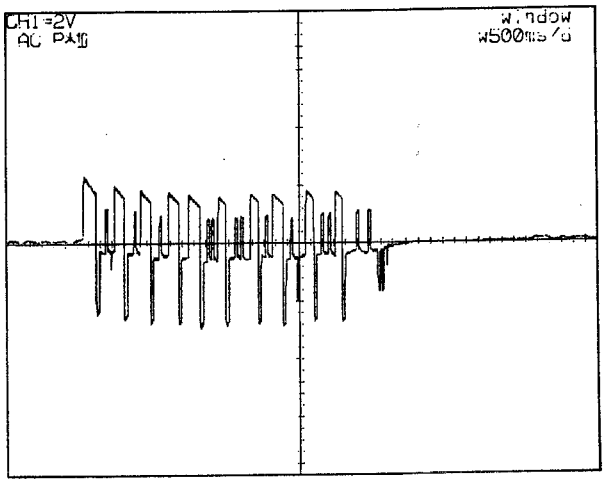
P-P	:	280mV	RISE	:	75µs
MAX	:	152mV	EALL	:	15µs
MIN	:	-128mV	FREQ	:	4.000KHz
RMS	:	44mV	PERIOD	:	250µs
AVG	:	8mV	+WIDTH	:	70µs
UNDSHT	:	67%	-WIDTH	:	180µs
OVRSHT	:	67%			



6 SL-P

TEST POINT : IC01-PIN14
Inverse input pin for the sled Amplifiel

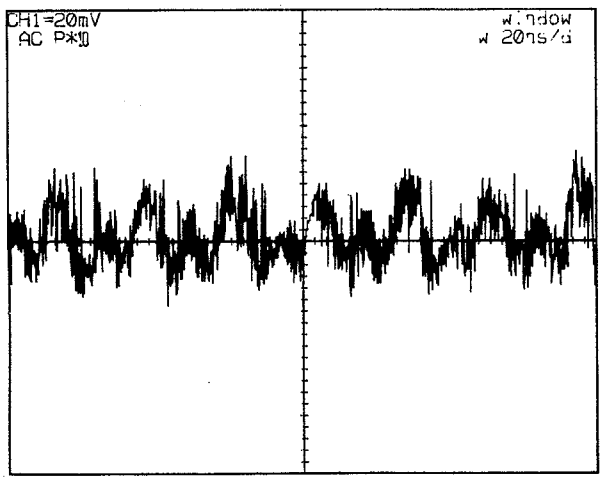
P-P	:	53.6mV	RISE	:	4.2ns
MAX	:	31.2mV	EALL	:	1.2ns
MIN	:	22.4mV	FREQ	:	48.07 MHz
RMS	:	10.4mV	PERIOD	:	21.0nS
AVG	:	1.6mV	+WIDTH	:	14.0nS
UNDSHT	:	22%	-WIDTH	:	7.0nS
OVRSHT	:	27%			



7 SL-O

TEST POINT : IC01-PIN16
Sled drive output

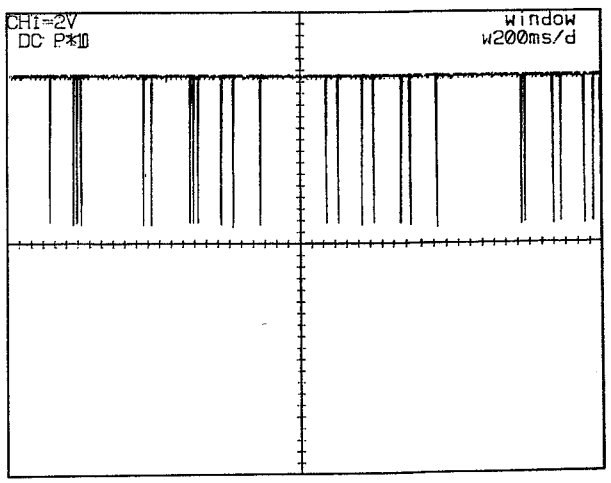
P-P	:	5.28V	RISE	:	55ms
MAX	:	2.32V	EALL	:	5ms
MIN	:	-2.96V	FREQ	:	7.692Hz
RMS	:	960mV	PERIOD	:	130ms
AVG	:	80mV	+WIDTH	:	100ms
UNDSHT	:	73%	-WIDTH	:	30ms
OVRSHT	:	127%			



8 CLK

TEST POINT : IC01-PIN19
Serial data Transfer clock input from CPU

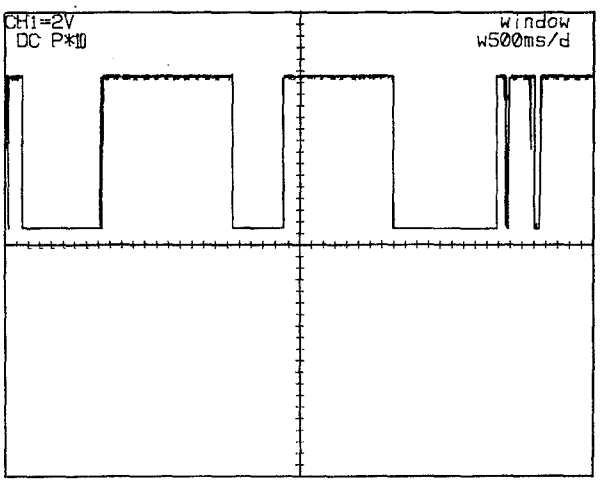
P-P	:	5.28V	RISE	:	2ms
MAX	:	5.84V	EALL	:	2ms
MIN	:	560mV	FREQ	:	25.00Hz
RMS	:	5.72V	PERIOD	:	40ms
AVG	:	5.60V	+WIDTH	:	38ms
UNDSHT	:	2%	-WIDTH	:	2ms
OVRSHT	:	2%			



9 XLT

TEST POINT : IC01-PIN20
Latch imput from CPU

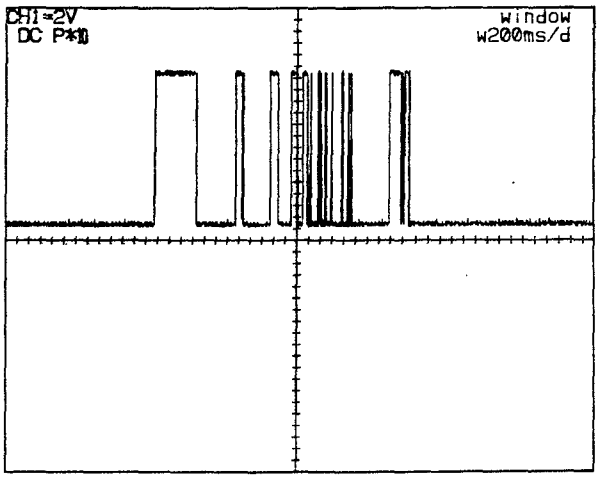
P-P	:	5.28V	RISE	:	5ms
MAX	:	5.84V	EALL	:	5ms
MIN	:	560mV	FREQ	:	1.030Hz
RMS	:	4.56V	PERIOD	:	970ms
AVG	:	3.76V	+WIDTH	:	80ms
UNDSHT	:	0%	-WIDTH	:	890ms
OVRSHT	:	0%			



10 DATA

TEST POINT : IC01-PIN21
Serial data input from CPU

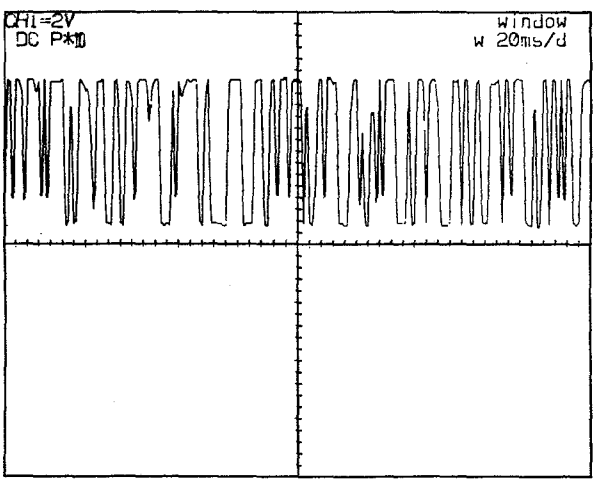
P-P	:	5.36V	RISE	:	2ms
MAX	:	5.84V	EALL	:	2ms
MIN	:	480mV	FREQ	:	31.25Hz
RMS	:	1.92V	PERIOD	:	34ms
AVG	:	1.04V	+WIDTH	:	16ms
UNDSHT	:	2%	-WIDTH	:	18ms
OVRSHT	:	2%			



11 C.OUT

TEST POINT : IC01-PIN23
Track number count signal output

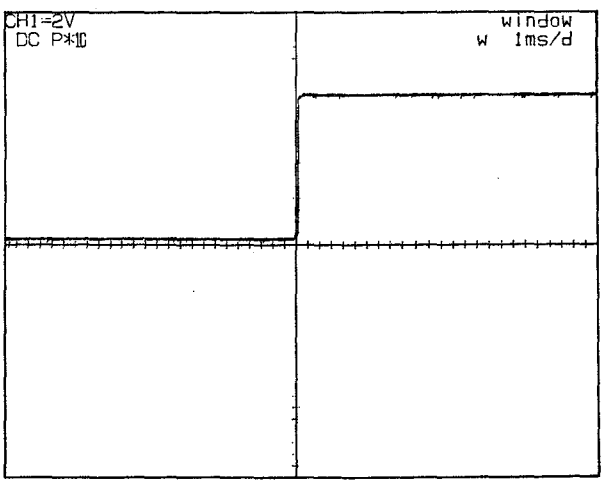
P-P	:	5.20V	RISE	:	1.8ms
MAX	:	5.76V	EALL	:	1.0ms
MIN	:	560mV	FREQ	:	138.8Hz
RMS	:	3.96V	PERIOD	:	7.2ms
AVG	:	3.36V	+WIDTH	:	6.0ms
UNDSHT	:	3%	-WIDTH	:	1.2ms
OVRSHT	:	2%			



12 FOK

TEST POINT : Q204 Collector
Reset at "L"

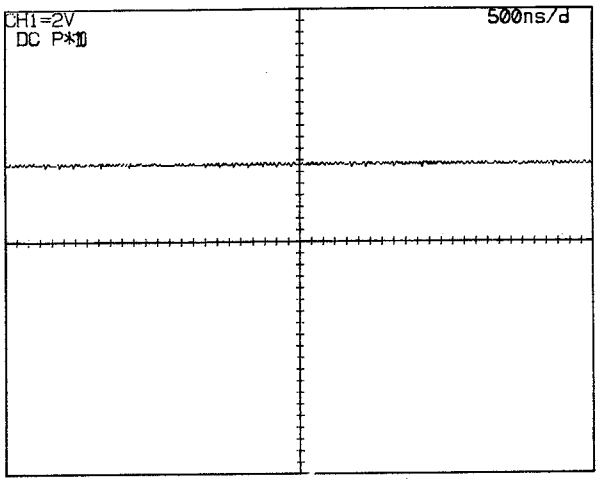
P-P	:	5.12V	RISE	:	10µs
MAX	:	5.20V	EALL	:	--------
MIN	:	80mV	FREQ	:	--------
RMS	:	3.64V	PERIOD	:	--------
AVG	:	2.64V	+WIDTH	:	--------
UNDSHT	:	3%	-WIDTH	:	--------
OVRSHT	:	0%			



13 CP

TEST POINT : IC101-PIN29
Mirr comparator non-inversed input

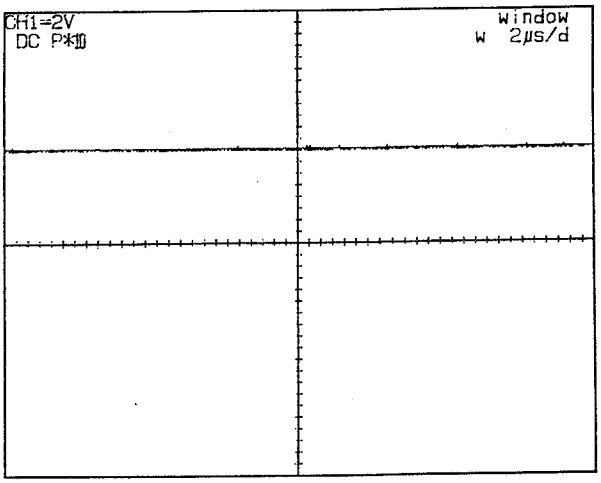
P-P	:	160mV	RISE	:	5ns
MAX	:	2.72V	EALL	:	5ns
MIN	:	2.56V	FREQ	:	8.333KHz
RMS	:	2.68V	PERIOD	:	120ns
AVG	:	2.64V	+WIDTH	:	110ns
UNDSHT	:	0%	-WIDTH	:	10ns
OVRSHT	:	100%			



14 LD

TEST POINT : IC01-PIN33
APC amplifier output

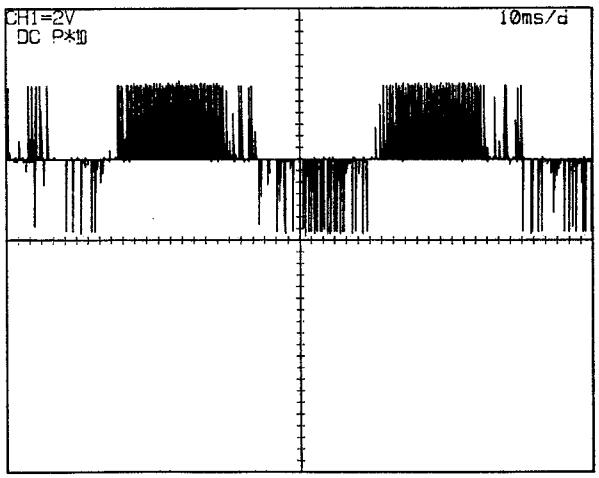
P-P	:	160mV	RISE	:	20ns
MAX	:	3.36V	EALL	:	0s
MIN	:	3.20V	FREQ	:	25.00MHz
RMS	:	3.24V	PERIOD	:	40ns
AVG	:	3.20V	+WIDTH	:	20ns
UNDSHT	:	0%	-WIDTH	:	20ns
OVRSHT	:	100%			



15 MDP

TEST POINT : IC01-PIN3
Output for SPINDLE motor servo control

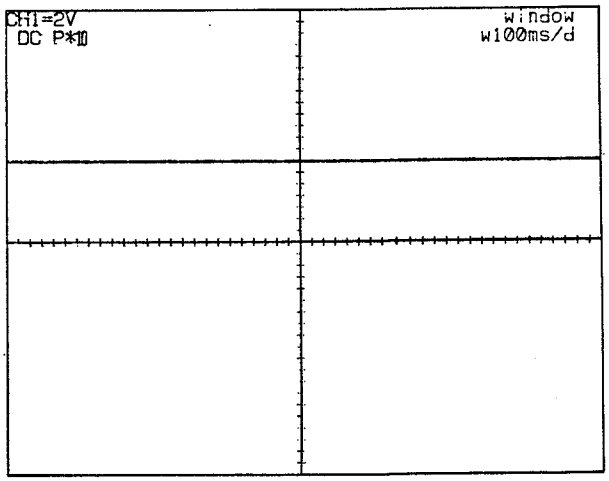
P-P	:	5.28V	RISE	:	100µs
MAX	:	5.44V	EALL	:	0µs
MIN	:	160mV	FREQ	:	1.666KHz
RMS	:	3.12V	PERIOD	:	600µs
AVG	:	2.88V	+WIDTH	:	500µs
UNDSHT	:	6%	-WIDTH	:	100µs
OVRSHT	:	106%			



16 CLTV

TEST POINT : IC01-PIN12
VCO control voltage input for master PLL

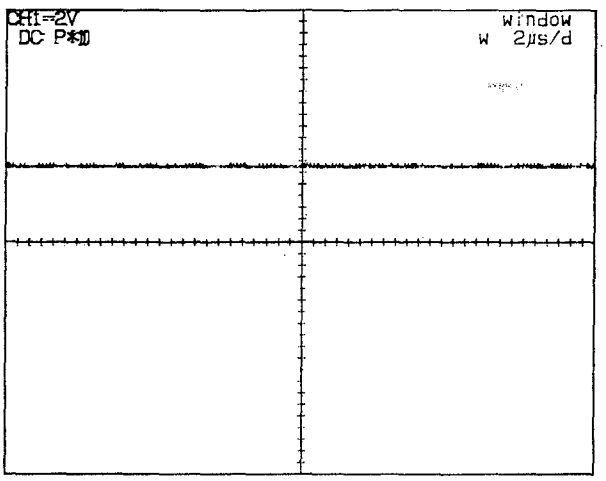
P-P	:	80mV	RISE	:	1ms
MAX	:	2.80V	EALL	:	0ms
MIN	:	2.72V	FREQ	:	500.0Hz
RMS	:	2.76V	PERIOD	:	3mS
AVG	:	2.72V	+WIDTH	:	1mS
UNDSHT	:	0%	-WIDTH	:	2mS
OVRSHT	:	0%			



17 ASYI

TEST POINT : IC01-PIN16
Assymmetry comparator circuit voltage input

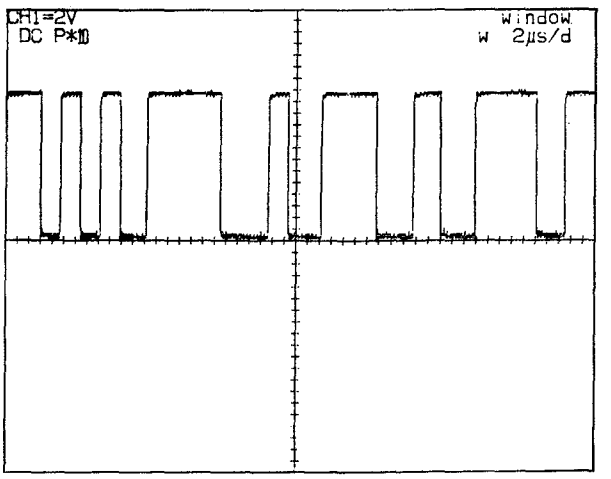
P-P	:	160mV	RISE	:	20ns
MAX	:	2.72V	EALL	:	0ns
MIN	:	2.56V	FREQ	:	25.00MHz
RMS	:	2.60V	PERIOD	:	40ns
AVG	:	2.56V	+WIDTH	:	20ns
UNDSHT	:	0%	-WIDTH	:	20ns
OVRSHT	:	100%			



18 ASYO

TEST POINT : IC01-PIN17
EFM full-swing cutput

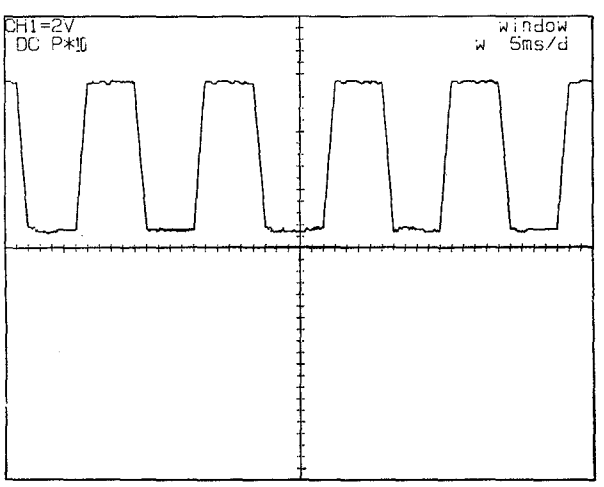
P-P	:	5.20V	RISE	:	40ns
MAX	:	5.20V	EALL	:	20ns
MIN	:	0mV	FREQ	:	735.2KHz
RMS	:	3.88V	PERIOD	:	1.36µs
AVG	:	2.96V	+WIDTH	:	680ns
UNDSHT	:	2%	-WIDTH	:	680ns
OVRSHT	:	2%			



19 LRCK

TEST POINT : IC03-PIN20
D/A Interface. LR Clock f=fs

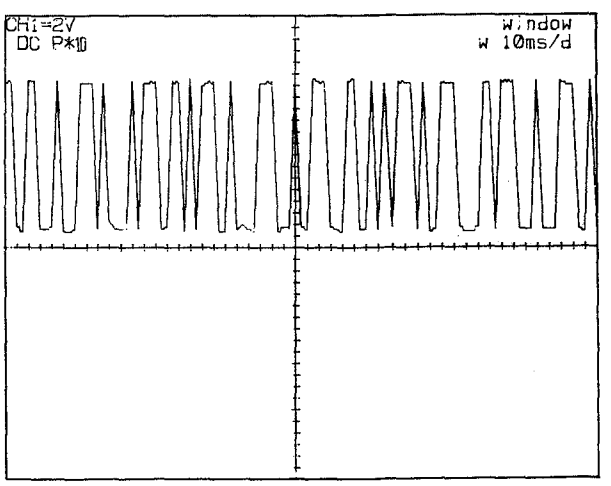
P-P	:	5.20V	RISE	:	950µs
MAX	:	5.76V	EALL	:	850µs
MIN	:	560mV	FREQ	:	100.0Hz
RMS	:	3.96V	PERIOD	:	10.00ms
AVG	:	3.12V	+WIDTH	:	510ms
UNDSHT	:	2%	-WIDTH	:	4.90ms
OVRSHT	:	0%			



20 PCMD

TEST POINT : IC01-PIN21
D/A Interface Serial Data

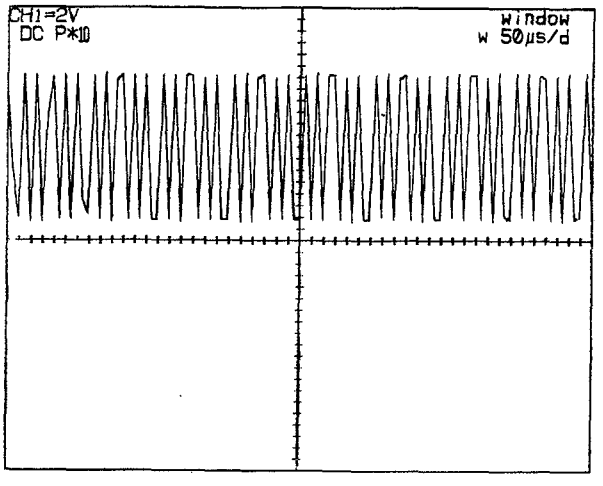
P-P	:	5.28V	RISE	:	900ns
MAX	:	5.84V	EALL	:	900s
MIN	:	560mV	FREQ	:	200.0Hz
RMS	:	3.76V	PERIOD	:	5.0ns
AVG	:	3.12V	+WIDTH	:	3.0ns
UNDSHT	:	2%	-WIDTH	:	2.0ns
OVRSHT	:	3%			



21 BCK

TEST POINT : IC03-PIN22
D/A Interface Bit clock

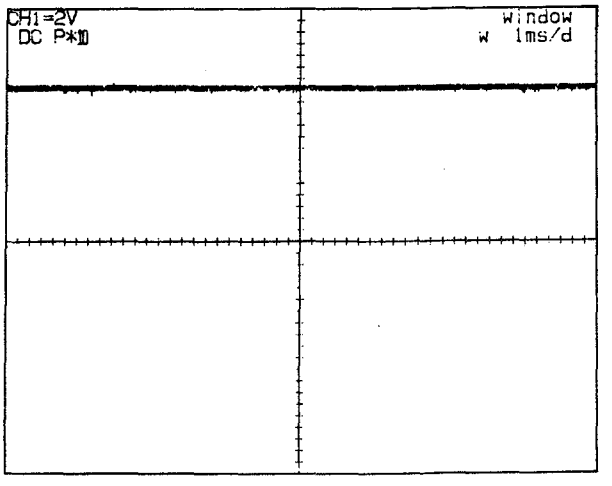
P-P	:	5.12V	RISE	:	4.5µs
MAX	:	5.76V	EALL	:	4.5µs
MIN	:	640mV	FREQ	:	100.0KHz
RMS	:	3.60V	PERIOD	:	10.0µs
AVG	:	3.12V	+WIDTH	:	5.0µs
UNDSHT	:	2%	-WIDTH	:	5.0µs
OVRSHT	:	3%			



22 GFS

TEST POINT : IC03-PIN27
Indicates the frame sync lock status

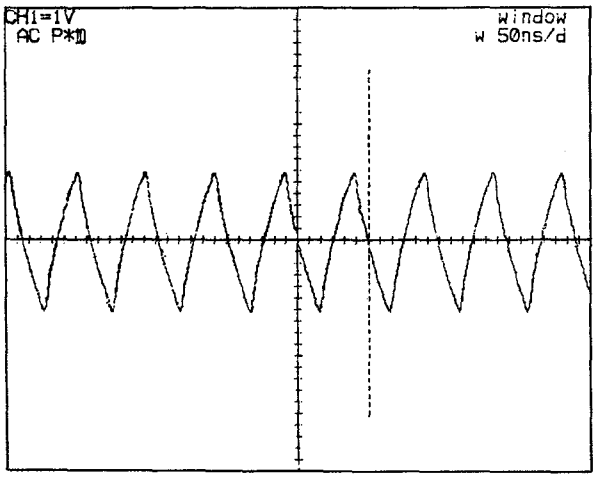
P-P	:	400mV	RISE	:	10ns
MAX	:	5.44V	EALL	:	50ns
MIN	:	5.04V	FREQ	:	1.020KHz
RMS	:	5.28V	PERIOD	:	980ns
AVG	:	5.20V	+WIDTH	:	10ns
UNDSHT	:	33%	-WIDTH	:	970ns
OVRSHT	:	33%			



23 XTAI

TEST POINT : IC103-PIN34
Input to crystal oscillator circuit, 16.934MHz

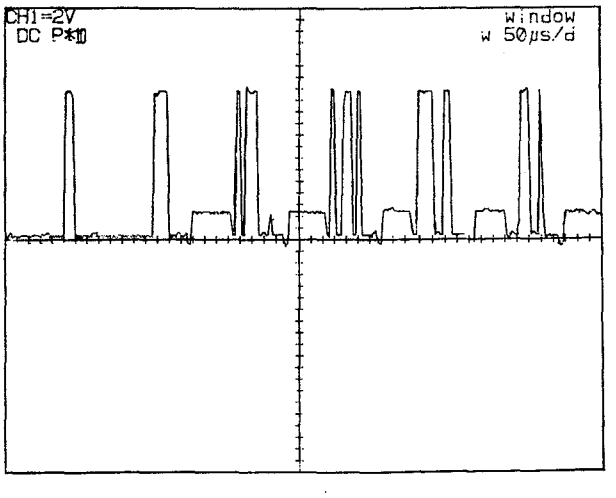
P-P	:	2.40V	RISE	:	20.0ns
MAX	:	1.16V	EALL	:	--------
MIN	:	-1.24V	FREQ	:	--------
RMS	:	700mV	PERIOD	:	--------
AVG	:	-40V	+WIDTH	:	--------
UNDSHT	:	4%	-WIDTH	:	--------
OVRSHT	:	2%			



24 DATA

TEST POINT : IC03-PIN51
Input Serial data fram CPU

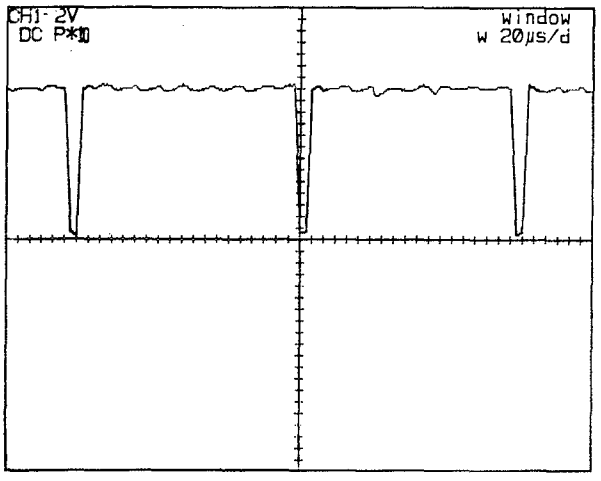
P-P	:	5.44V	RISE	:	1.5µs
MAX	:	5.20V	EALL	:	1.5µs
MIN	:	-240mV	FREQ	:	90.90KHz
RMS	:	2.16V	PERIOD	:	11.0µs
AVG	:	2.18V	+WIDTH	:	5.0µs
UNDSHT	:	8%	-WIDTH	:	6.0µs
OVRSHT	:	2%			



25 XLAT

TEST POINT : IC03-PIN52
Latch input from CPU

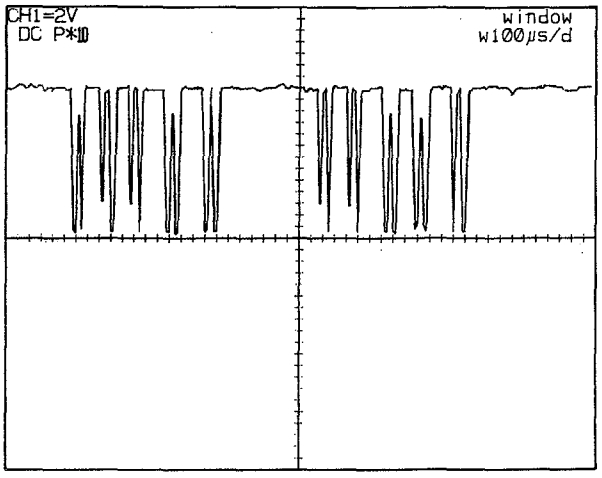
P-P	:	5.20V	RISE	:	1.8μs
MAX	:	5.36V	EALL	:	1.8μs
MIN	:	160mV	FREQ	:	13.51KHz
RMS	:	5.00V	PERIOD	:	74.0μs
AVG	:	4.80V	+WIDTH	:	70.0μs
UNDSHT	:	2%	-WIDTH	:	4.0μs
OVRSHT	:	3%			



26 CLOK

TEST POINT : IC03-PIN53
Input Serial data transfer clock from CPU

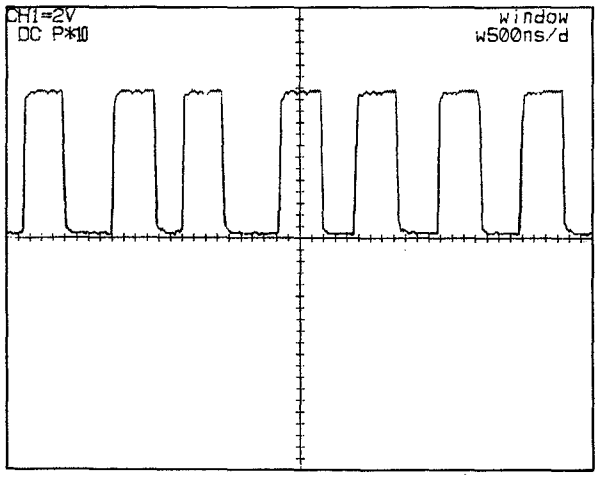
P-P	:	5.12V	RISE	:	5μs
MAX	:	5.28V	EALL	:	5μs
MIN	:	160mV	FREQ	:	20.00KHz
RMS	:	4.72V	PERIOD	:	50μS
AVG	:	4.40V	+WIDTH	:	30μS
UNDSHT	:	2%	-WIDTH	:	20μS
OVRSHT	:	2%			



27 RON

TEST POINT : IC06-PIN14
R Channel PWM output

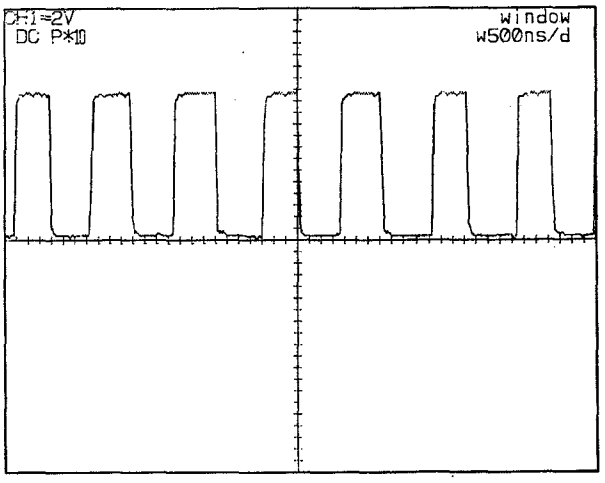
P-P	:	5.04V	RISE	:	35ns
MAX	:	5.12V	EALL	:	15ns
MIN	:	80mV	FREQ	:	1.562MHz
RMS	:	3.56V	PERIOD	:	640ns
AVG	:	2.56V	+WIDTH	:	360ns
UNDSHT	:	0%	-WIDTH	:	280ns
OVRSHT	:	2%			



28 LON

TEST POINT : IC06-PIN12
L Channel PWM output

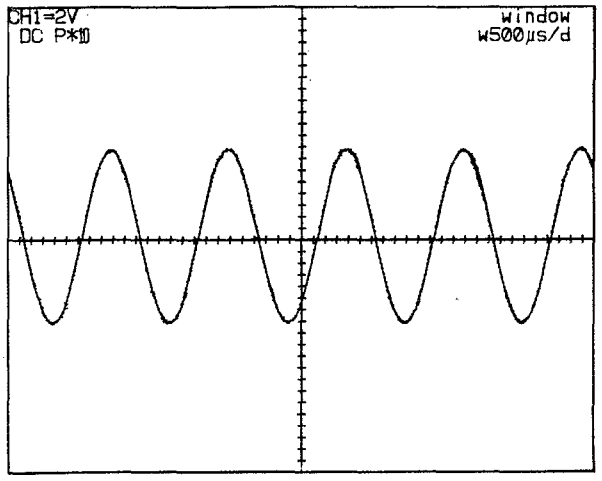
P-P	:	5.04V	RISE	:	15ns
MAX	:	5.12V	EALL	:	15ns
MIN	:	80mV	FREQ	:	1.408MHz
RMS	:	3.08V	PERIOD	:	710ns
AVG	:	2.00V	+WIDTH	:	350ns
UNDSHT	:	2%	-WIDTH	:	360ns
OVRSHT	:	2%			



29 R-Channel

TEST POINT : CN80-4
R-Channel Audio Output

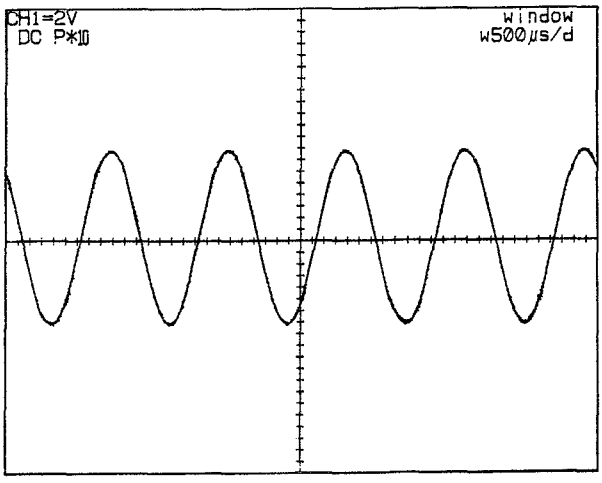
P-P	:	6.00V	RISE	:	280µs
MAX	:	3.12V	EALL	:	295µs
MIN	:	-2.88V	FREQ	:	100.0KHz
RMS	:	2.12V	PERIOD	:	1.000ms
AVG	:	320mV	+WIDTH	:	490µs
UNDSHT	:	1%	-WIDTH	:	510µs
OVRSHT	:	1%			



30 L-Channel

TEST POINT : CN80-2
L-Channel Audio Output

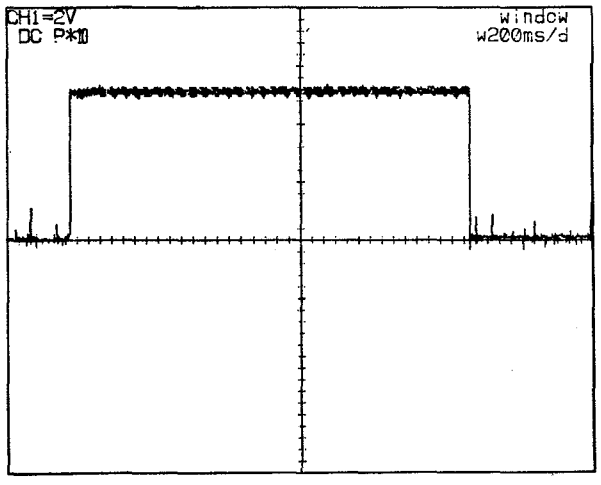
P-P	:	6.00V	RISE	:	280µs
MAX	:	3.12V	EALL	:	295µs
MIN	:	-2.88V	FREQ	:	1.000KHz
RMS	:	2.12V	PERIOD	:	1.000ms
AVG	:	320mV	+WIDTH	:	490µs
UNDSHT	:	1%	-WIDTH	:	510µs
OVRSHT	:	1%			



31 FRONT

TEST POINT : CN79-4
Output Loading motor control

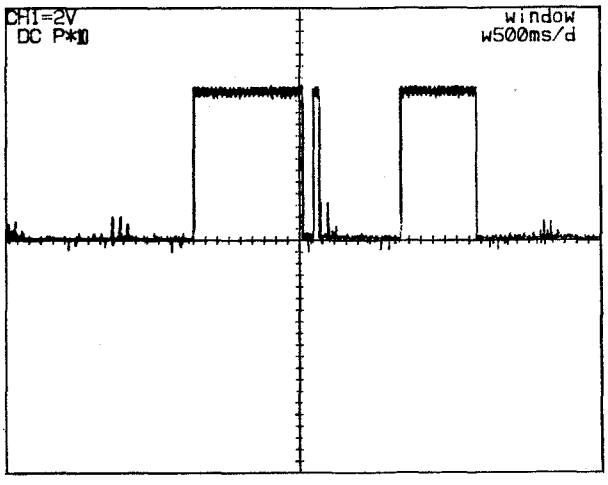
P-P	:	5.68V	RISE	:	--------
MAX	:	5.36V	EALL	:	2ms
MIN	:	-320mV	FREQ	:	--------
RMS	:	3.92V	PERIOD	:	--------
AVG	:	2.96V	+WIDTH	:	--------
UNDSHT	:	8%	-WIDTH	:	--------
OVRSHT	:	2%			



32 GFS

TEST POINT : CN79-5
Output Loading motor control

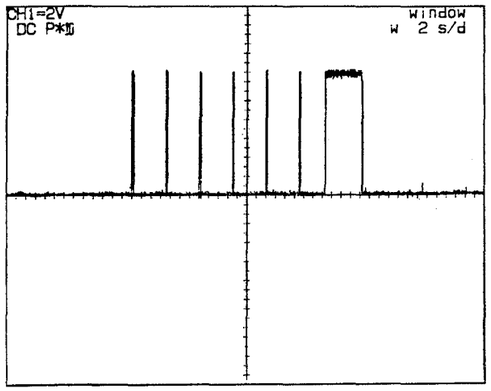
P-P	:	5.76V	RISE	:	5ms
MAX	:	5.36V	EALL	:	5ms
MIN	:	-400mV	FREQ	:	7.142Hz
RMS	:	2.72V	PERIOD	:	140ms
AVG	:	1.44V	+WIDTH	:	50ms
UNDSHT	:	9%	-WIDTH	:	90ms
OVRSHT	:	2%			



33 ST.UP

TEST POINT : CN79-6
Output Store motor control

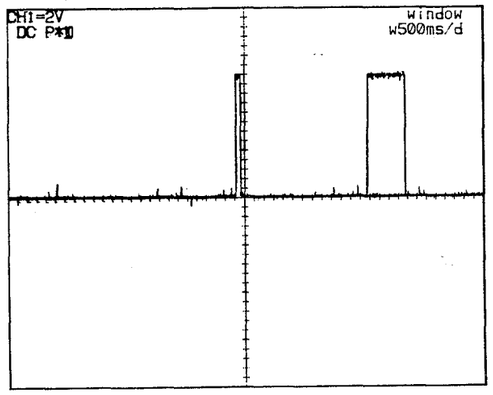
P-P	:	5.36V	RISE	:	20ms
MAX	:	5.28V	EALL	:	20ms
MIN	:	-80mV	FREQ	:	714.2mHz
RMS	:	2.08V	PERIOD	:	1.40s
AVG	:	880mV	+WIDTH	:	40ms
UNDSHT	:	3%	-WIDTH	:	1.36s
OVRSHT	:	0%			



34 ST.DOWN

TEST POINT :CN79-7
Output Store motor control

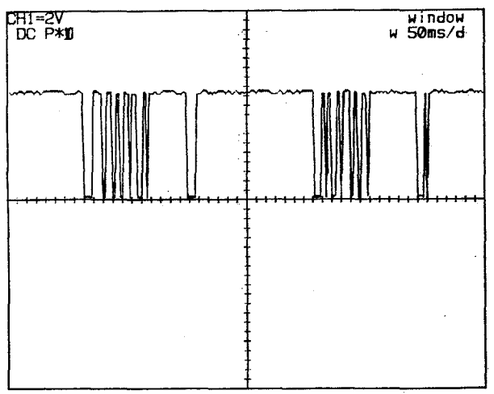
P-P	:	5.44V	RISE	:	5ms
MAX	:	5.28V	EALL	:	5ms
MIN	:	-160mV	FREQ	:	--------
RMS	:	2.04V	PERIOD	:	--------
AVG	:	800mV	+WIDTH	:	395ms
UNDSHT	:	5%	-WIDTH	:	--------
OVRSHT	:	2%			



35 REMO

TEST POINT : CN79-3
Remocon data input, output

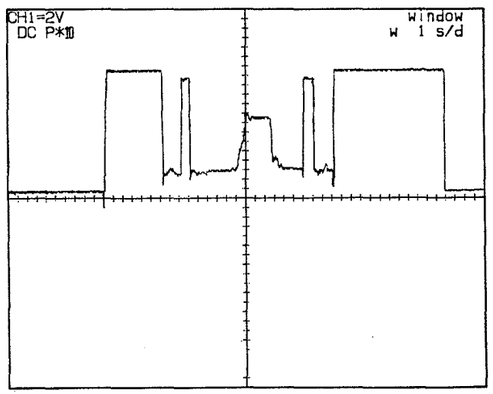
P-P	:	4.56V	RISE	:	1.5ms
MAX	:	4.64V	EALL	:	1.5ms
MIN	:	80mV	FREQ	:	90.90Hz
RMS	:	4.12V	PERIOD	:	11.0ms
AVG	:	3.84V	+WIDTH	:	3.0ms
UNDSHT	:	2%	-WIDTH	:	8.0ms
OVRSHT	:	2%			



36 DSEN

TEST POINT : CN71-1
DISC detect senser output

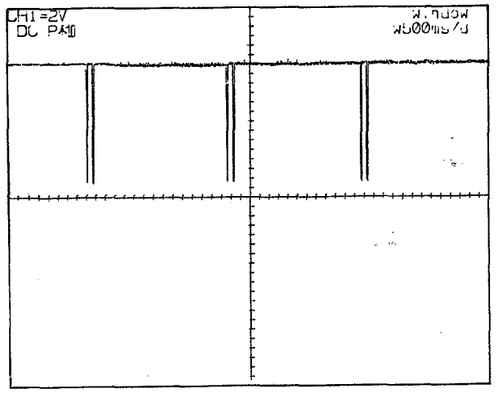
P-P	:	5.20V	RISE	:	20ms
MAX	:	5.44V	EALL	:	420ms
MIN	:	240mV	FREQ	:	362.3mHz
RMS	:	4.04V	PERIOD	:	2.76S
AVG	:	3.36V	+WIDTH	:	2.34S
UNDSHT	:	2%	-WIDTH	:	420mS
OVRSHT	:	0%			



37 NSEN

TEST POINT : CN72-3
Input DISC Count Senser

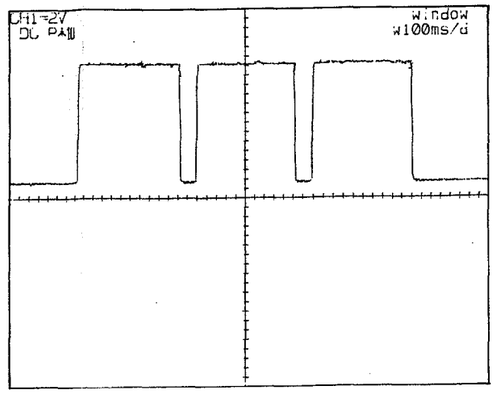
P-P	:	5.04V	RISE	:	5ms
MAX	:	5.68V	EALL	:	5ms
MIN	:	640mV	FREQ	:	16.66Hz
RMS	:	5.60V	PERIOD	:	60ms
AVG	:	5.52V	+WIDTH	:	50ms
UNDSHT	:	0%	-WIDTH	:	10ms
OVRSHT	:	2%			



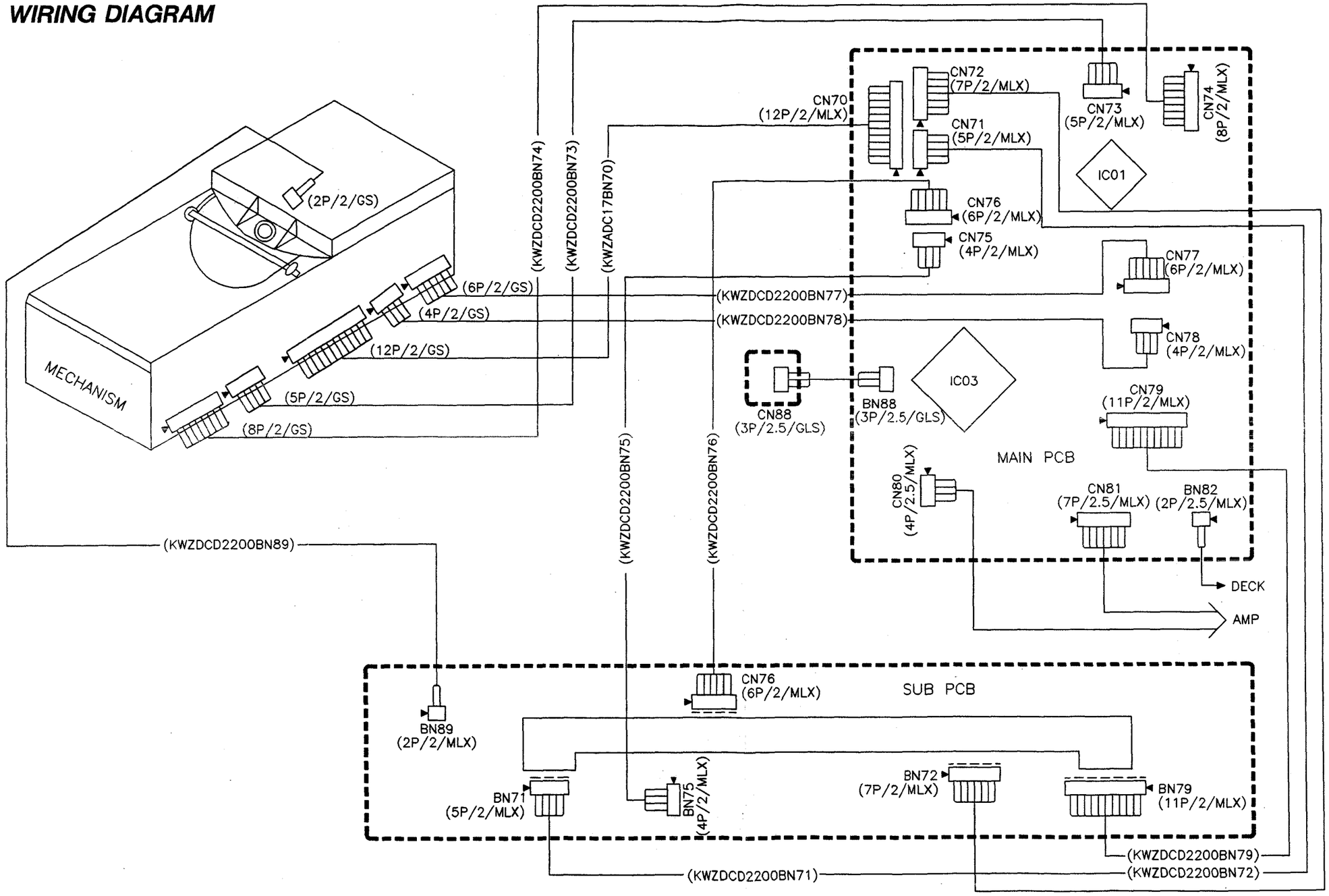
38 CSEN

TEST POINT :CN72-5
Inpur DISC Center detect senser

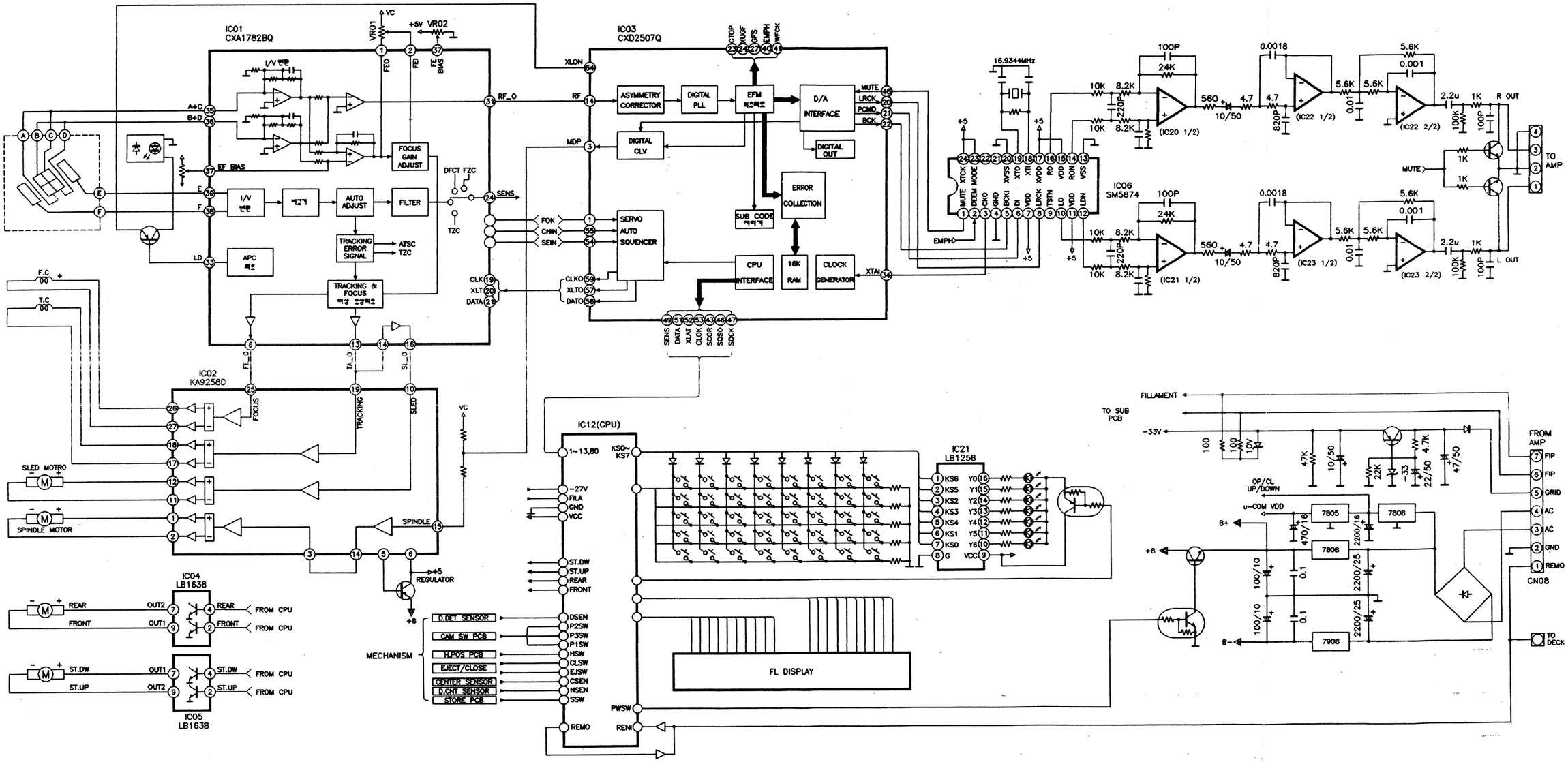
P-P	:	5.12V	RISE	:	3ms
MAX	:	5.76V	EALL	:	3ms
MIN	:	640mV	FREQ	:	4.237Hz
RMS	:	4.48V	PERIOD	:	237ms
AVG	:	3.68V	+WIDTH	:	202ms
UNDSHT	:	0%	-WIDTH	:	35ms
OVRSHT	:	2%			



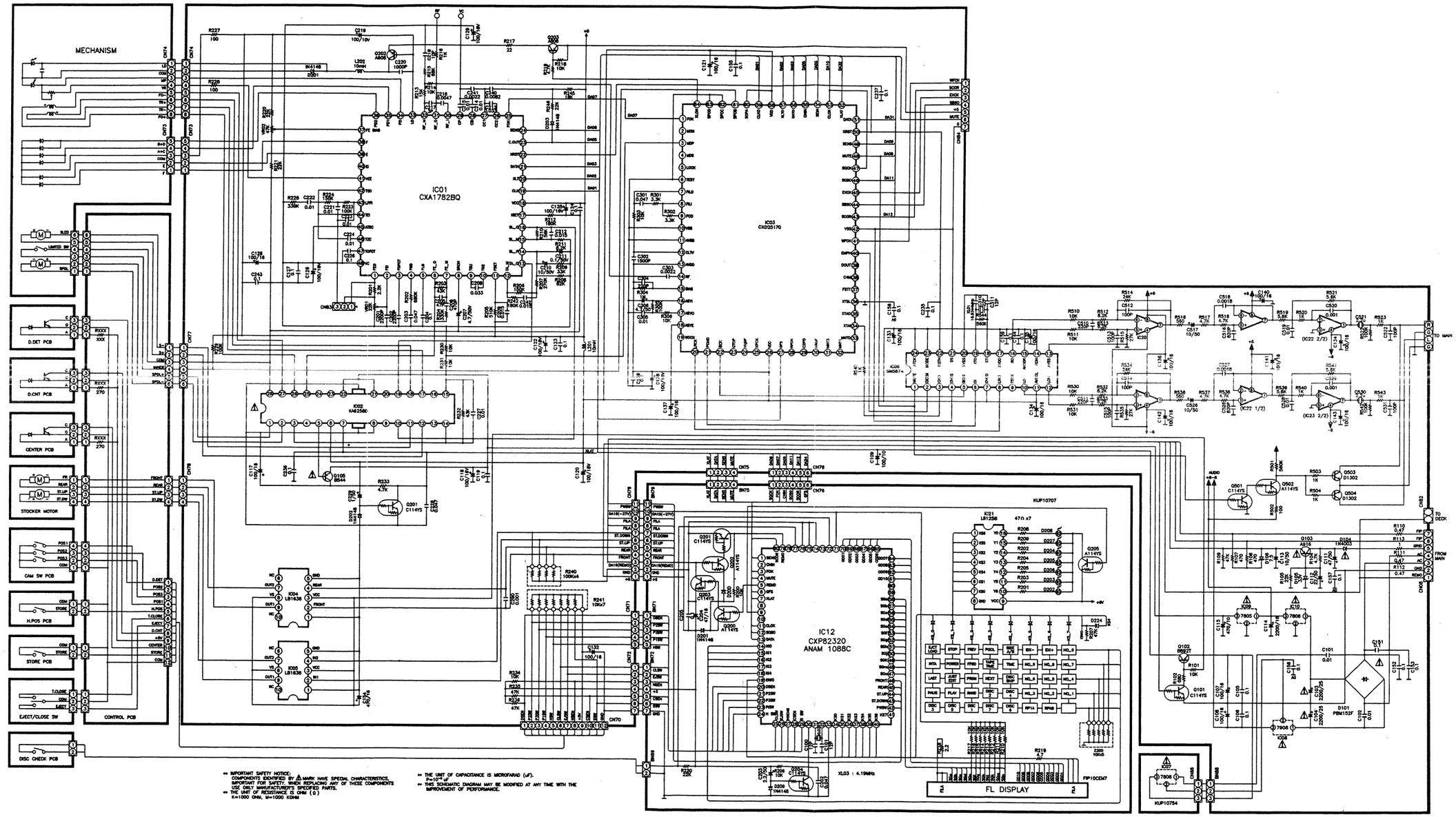
DC-D2200 CDP
WIRING DIAGRAM



DC-D2200 CDP
BLOCK DIAGRAM



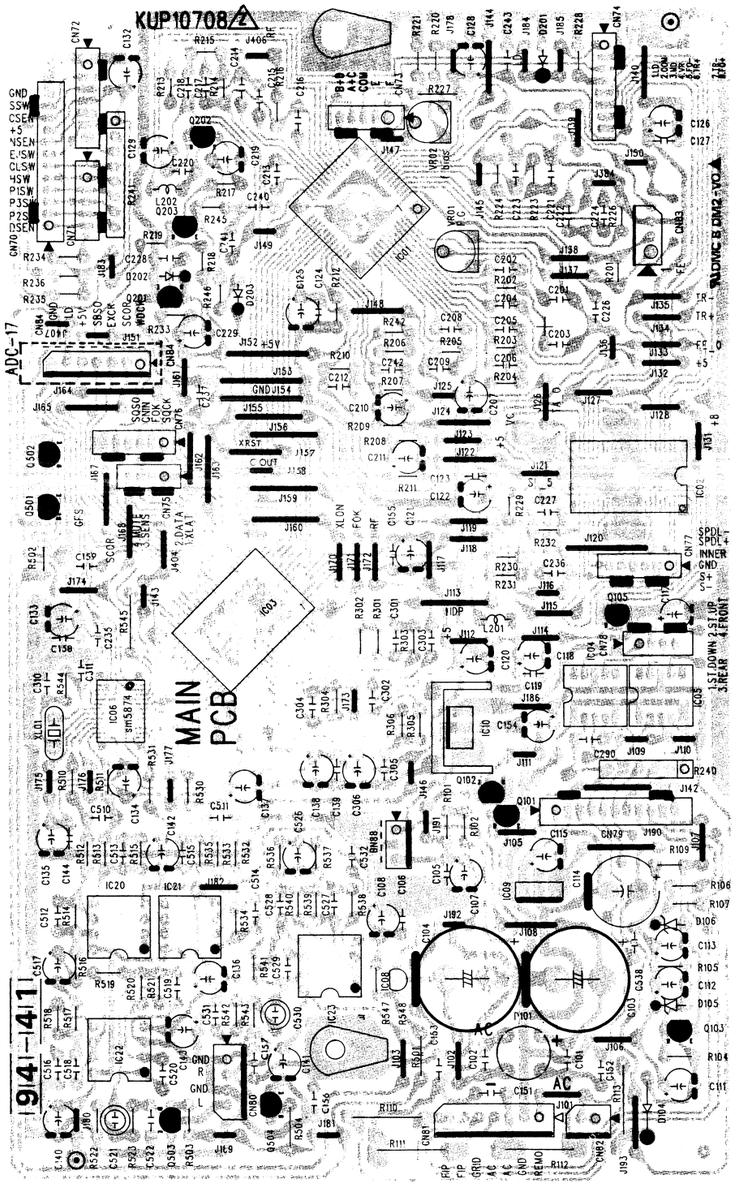
DC-D2200 CDP
SCHEMATIC DIAGRAM



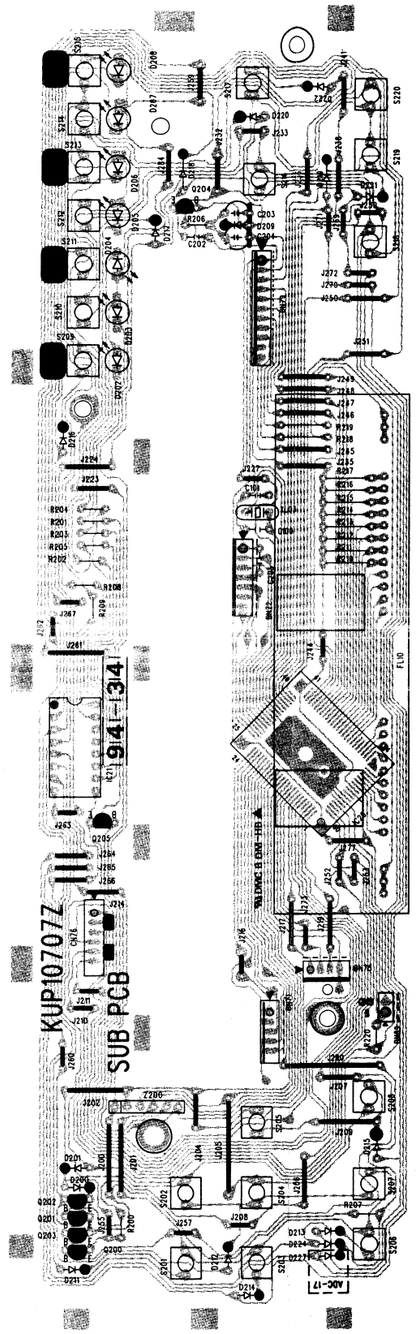
- IMPORTANT SAFETY NOTICE:
  COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS.
  IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS
  USE ONLY MANUFACTURER'S SPECIFIED PARTS.
- THE UNIT OF RESISTANCE IS OHM (Ω)
  K=1000 OHM, M=1000 KOHM
- THE UNIT OF CAPACITANCE IS MICROFARAD (uF).
  P=10^{-6} uF
- THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE.

DC-D2200 CDP
PRINTED CIRCUIT BOARDS

• MAIN PCB

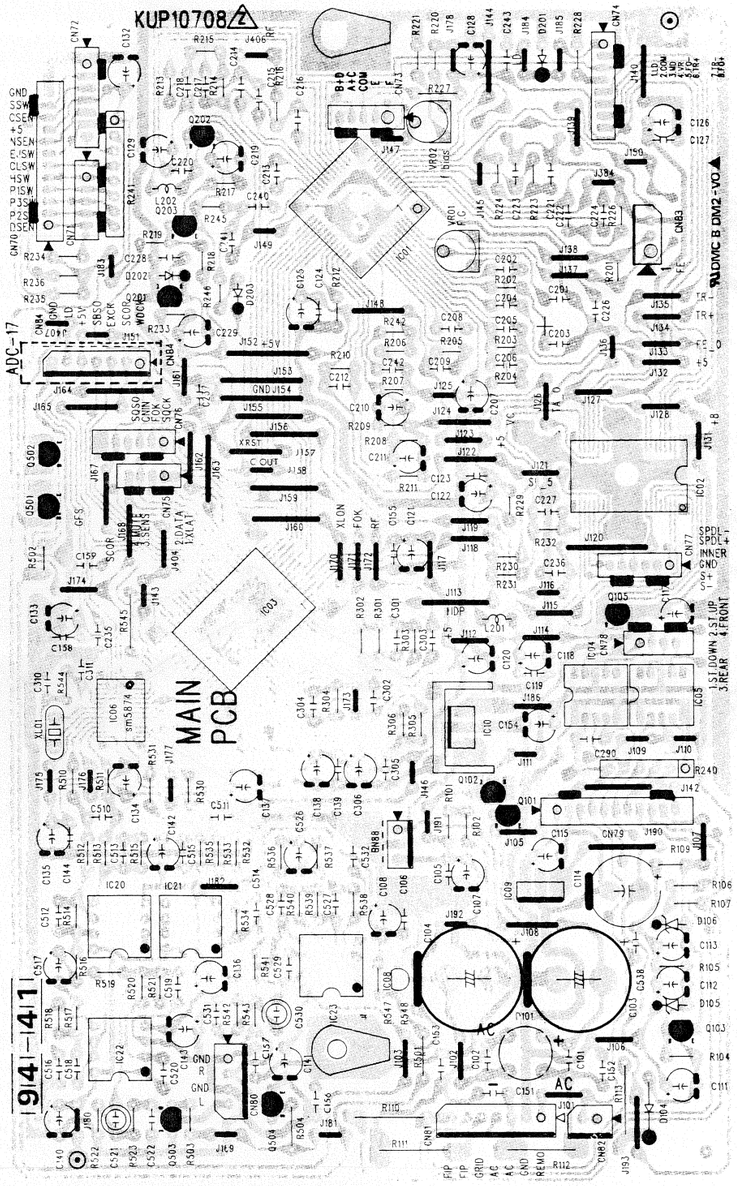


• SUB PCB

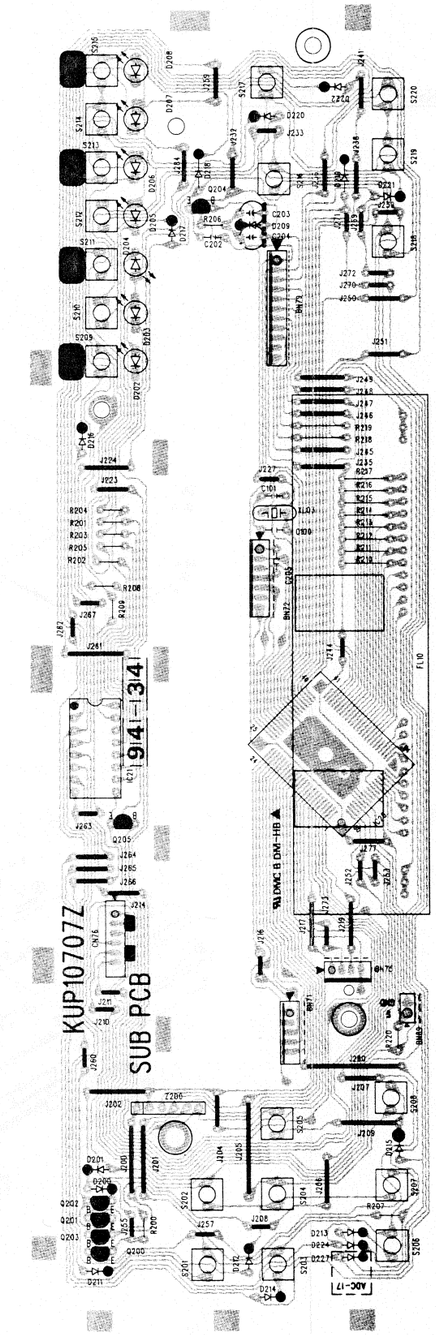


DC-D2200 CDP
PRINTED CIRCUIT BOARDS

• MAIN PCB



• SUB PCB

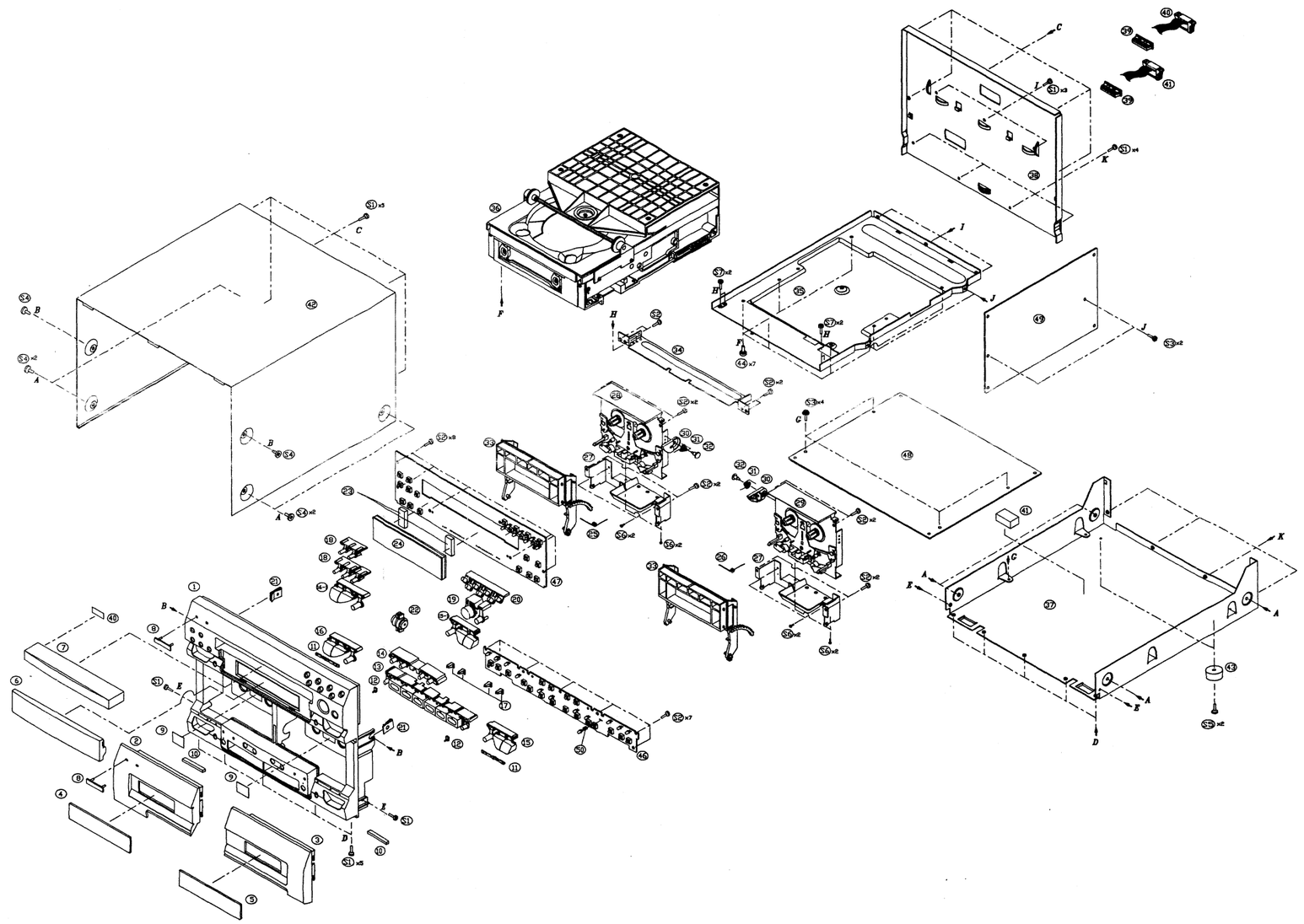


DC-D2200DC

■ DECK/CDP EXPLODED VIEW

EXPLODED VIEW-1 (DC-D2200)

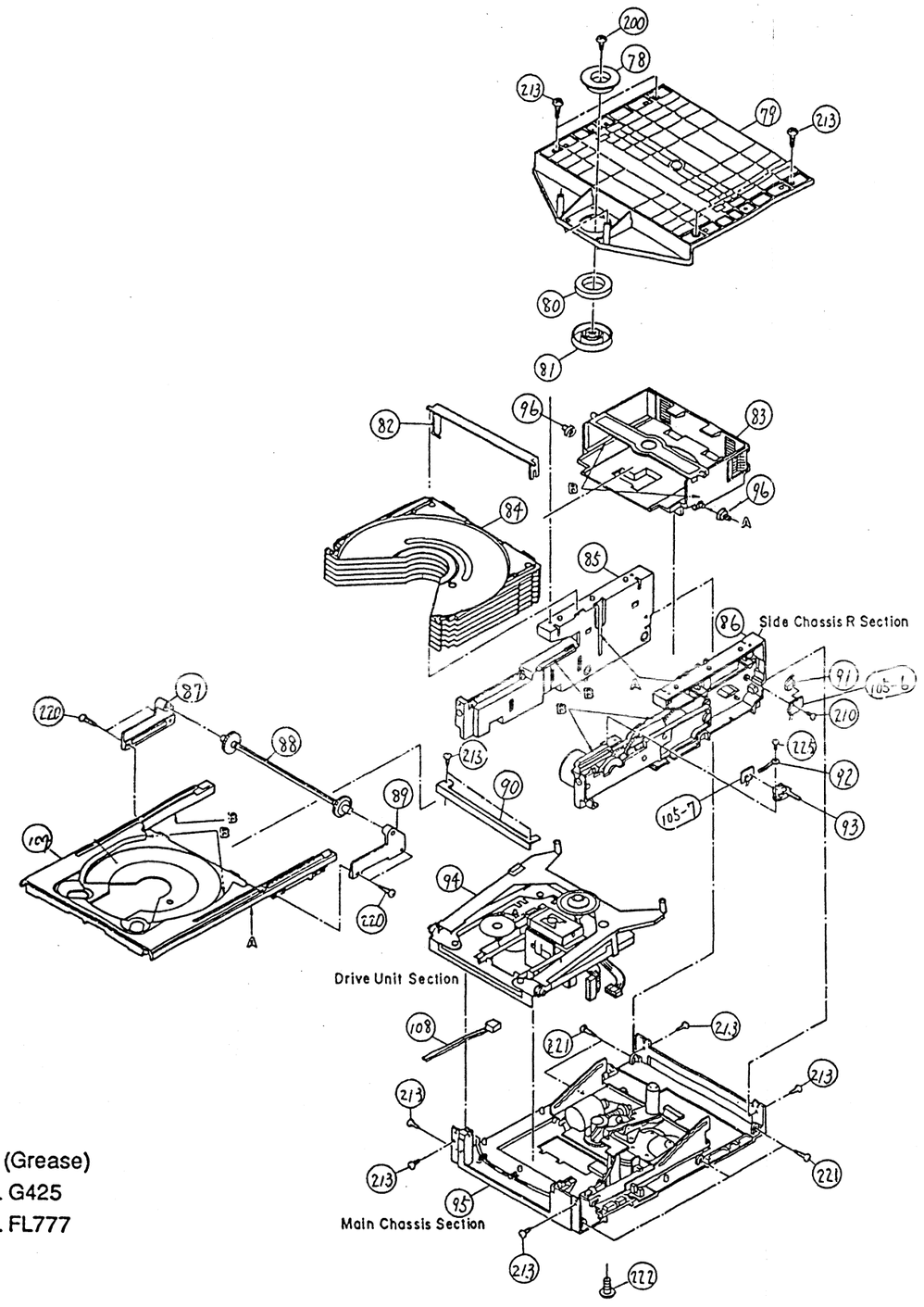
Ref. No.	Part No.	Description	Remarks
1	9A05355400	PANEL , FRONT	
2	9A05325900	WINDOW , CST(L)	
3	9A05325800	WINDOW , CST(R)	
4	9A05325300	ORNAMENT , CST(L)	
5	9A05325200	ORNAMENT , CST(R)	
6	9A05355000	WINDOW , FLT	
7	9A05354900	ORNAMENT , DOOR(CD)	
8	9A05325000	BADGE,TEAC	
9	9A01416600	REFLECTOR	
10	9A05327000	RUBBER , FOOT	
11	9A05192700	INDICATOR,LED	
12	9A05192300	INDCATOR,LED	
13	9A05191300	KNOB,TACT	
14	9A05191400	KNOB,TACT	
15	9A05191600	KNOB,TACT(PAUSE)	
15-1	9A05191800	KNOB,TACT(PLAY)	
16	9A05191900	KNOB,TACT(DUB)	
16-1	9A05192100	KNOB,TACT(SKIP)	
17	9A05192600	INDICTOR,LED	
18	9A05318200	KNOB , TACT	
19	9A05191500	KNOB,TACT(OPEN)	
20	9A05353500	KNOB , TACT	
21	9A03741300	U-NUT	
22	9A05192200	DAMPER ASSY	
23	9A05327100	GUIDE , FLT	
24			
25	9A05341000	SPRING(L)	
26	9A05340900	SPRING(R)	
27	9A05333200	BRACKET , MECHANISM	
28	9A05328700	P/B DECK MECHANISM	
29	9A05328800	R/P DECK MECHANISM	
30	9A05318100	LOCKER , DOOR	
31	9A05341100	SPRING , LOCK	
32	9A05326500	SCREW,SPECIAL A4-92-166	
33	9A05331500	HOLDER , CST	
34	9A05333000	FRAME , MECHA	
35	9A05359200	CHASSIS, BOTTOM	
36	9A05356100	CD MECHANISM ASSY	
37	9A05339700	CHASSIS , MAIN	
38	9A05331400	PANEL , REAR	
39	9A05333300	HOLDER , WIRE	
40	9A05355600	SHEET 1A102	
41	9A05326800	RUBBER	
42	9A05331100	CABINET , TOP	
43	9A05331700	RUBBER , FOOT	
44	9A05357300	HEAT SINK	
45			
46	9A05334600	DECK SUB PCB ASS'Y	
47	9A05357700	CD SUB PCB ASSY	
48	9A05334700	DECK MAIN PCB ASS'Y DC-D1	
49	9A05357800	CD MAIN PCB ASS'Y	



DC-D2200 CDP MECHANISM

EXPLODED VIEW-3 (DC-D2200 CD MECHANISM)

Ref. No.	Part No.	Description	Remarks
78	9A05308700	CLAMPER HI	
79	9A05308800	TOP COVER	
80	9A05308900	MAGNET 17X27X5	
81	9A05309000	CLAMPER LO	
82	9A05309100	ASSIST ARM	
83	9A05309200	STOCKER AS SA	
84	9A05309300	CARRIAGE-N	
85	9A05309400	SIDE CHASSIS L	
87	9A05309500	TRAY HOLDER L	
88	9A05309600	PINION ASSY	
89	9A05309700	TRAY HOLDER R	
90	9A05309800	MECHA B STOPPER	
91	9A05309900	MSS-10L-2	
92	9A05310000	CORD CLAMPER 3B40	
93	9A05310100	SSS-13	
95	9A05363600	MAIN CHASSIS SECTION	
96	9A05310300	STC GUIDE PIN	
97	9A05310400	DVER DISC SV PCB	
98	9A05310500	SW-112	
99	9A05310600	S28-PH-K-S	
105-6	9A05310700	STORE SW PCB	
105-7	9A05310800	OP/CL SW PCB	
107	9A05310900	MECHA SP AV2	
108	9A05311000	NYLON BAND	
200	9A05311100	M2.6X6 BIND P-TIGHT	
210	9A05311200	M2X5 BIND P-TIGHT	
213	9A05311300	M2.6X8 BIND B-TIGHT	
220	9A05363000	M2.6X11 BIND B-TIGHT	
221	9A05311500	M2.6X10 BIND B-TIGHT	
225	9A05311600	M2.6X5 PAN S-TIGHT	

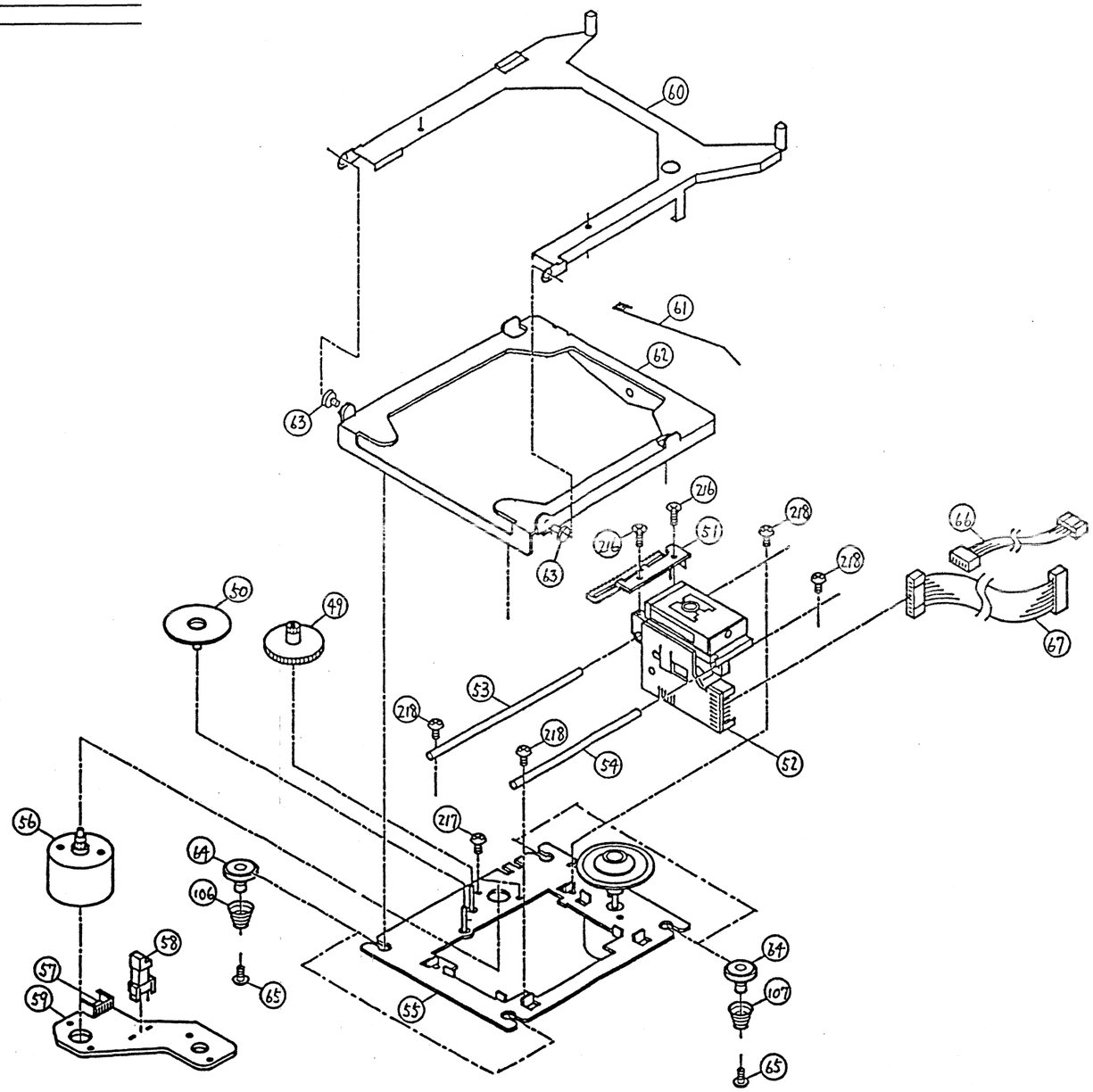


Lubricant (Grease)
A: FLOIL G425
B: FLOIL FL777

DC-D2200 CDP PICK UP SECTION

EXPLODED VIEW-3 (DC-D2200 CD PICK UP SECTION)

Ref. No.	Part No.	Description	Remarks
49	9A05363100	GEAR POWER	
50	9A05311800	GEAR MODDLE	
51	9A05311900	APLATE RACK	
52	9A05312000	PICK UP SF91P0	
53	9A05312100	GUIDE BAR B	
54	9A05312200	GUIDE BAR A	
55	9A05312300	DISC MOTOR AS	
56	9A05312400	FEED MOTOR AS	
57	9A05312500	S6B-PH-K-S	
58	9A05312600	LEAF SW BSV-333A	
59	9A05312700	MOTOR PCB 90V1-N	
60	9A05312800	GUIDE PLATE AS	
61	9A05312900	GUIDE PLATE SP	
62	9A05313000	SUS CHASSIS AS	
63	9A05313100	ST-2-4-4 AV	
64	9A05313200	MECHA SUS AV	
65	9A05313300	M2-3-9 AV	
66	9A05313400	CNW-5P	
67	9A05313500	CNW-W8P	
106	9A05313600	MECHA SP AV1	
107	9A05310900	MECHA SP AV2	
216	9A05313700	M2X5 FLAT	
217	9A05313800	M2X2.5 PAN	
218	9A05313900	M2.6X6 S-TIGHT	



■ ELECTRICAL PARTS LIST

CAUTION : A ⚠ in the schematic diagram and the parts list designates components which have special characteristics important to safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.
Before replacing any of it these components, read carefully the PRODUCT SAFETY NOTICE on page 2 in this manual. Do not harm the safety of the unit through improper servicing.

CD MAIN PCB ASSY (DC-D2200)

Ref. No.		Part No.	Description
		9A05357800	CD MAIN PCB ASS'Y
		9A05359400	PCB , MAIN
		9A05218400	IC,KA7808TB
		9A05357200	HEAT SINK(TR,) A4-92-1609
C103,C104	⚠	9A01402000	C,ELEC 2200UF/25V
C114	⚠	9A01413900	C., ELEC 2200UF/16V
D101	⚠	9A05188900	DIODE,PBM152F
D104		9A05194800	DIODE,1N4003SV
D105		9A05193900	DIODE,ZENER MTZJ33DT
D106		9A05194200	DIODE,ZENER MTZJ7.5AT
D201-D203		9A01390500	DIODE,1N4148MT
IC01		9A05217800	IC,CXA1782BQ
IC02		9A05218500	IC,KA9258D
IC03		9A05217900	IC,CXD2507Q
IC04		9A05218000	IC,LB1638
IC06		9A05218200	IC,SM5874AM
IC08	⚠	9A05218100	IC,NJM79L08A
IC09	⚠	9A05341500	iC, MC7805C
IC10	⚠	9A05218300	IC,KA7808A
IC20		9A05195500	IC,KIA4558P
L201		9A05356900	COIL , AXAIL 10UH,K
Q101,Q201		9A05196500	TR,DTC114YST
Q102		9A05219100	TR,2SB892T
Q103	⚠	9A05196700	TR,KSA916YT
Q105		9A05359900	TR, 2SB544NPF
Q202,Q203		9A05197800	TR,2SA608NPFT
Q501,Q502		9A05196500	TR,DTC114YST
Q503,Q504		9A05197500	TR,KTD1302T
R110-R112	⚠	9A05338300	R, FUSE 12AJR47H
R113	⚠	9A05358900	R, FUSIBLE 12AJ1R0H
R240		9A05337800	RES , NETWORK SN5X103J
R241		9A05358800	R, NET WORK SN7X103J
VR01		9A03746500	R., SEMI, KVNCA223B01G
VR02		9A03746400	R., SEMI, KVNCA473B01G
XL01		9A05193100	CRYSTAL,

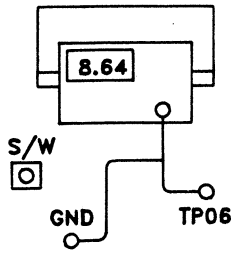
CD SUB PCB ASSY (DC-D2200)

Ref. No.	Part No.	Description
	9A05357700	CD SUB PCB ASS'Y
	9A05359300	PCB , SUB
	9A05327200	CUSHION , FLT
D200,D201	9A01390500	DIODE,1N4148MT
D202-D208	9A05194900	LED,342MCF02T085 GRN
D209	9A01390500	DIODE,1N4148MT
FL10	9A05353000	F.I.P FIP10CEM7
IC20	9A05217700	IC,ANAM1088C
IC21	9A04274900	IC,LB1258
Q200-Q205	9A05196400	TR,DTA114YST
S201-S210	9A04882500	SW,TACT
S211-S220	9A04882500	SW,TACT
XL03	9A05192900	CRYSTAL,
Z200	9A05337800	RES , NETWORK SN5X103J

ADJUSTMENT

1. PLL FREE RUN FREQUENCY ADJUSTMENT

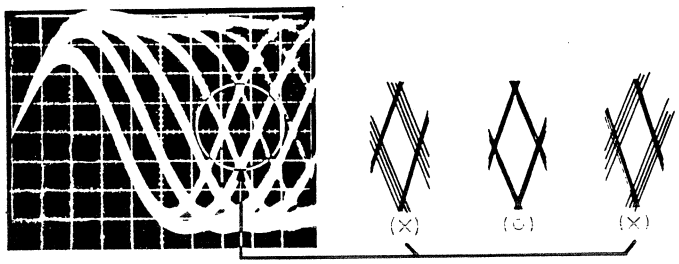
1. Connect the frequency counter to TP 6 on the PCB.
2. Turn on the unit and press the stop button.
3. Press the Tact sw.
4. Adjust the VR95 using a plastic drive so that the frequency counter reads 8.64 ± 0.05MHz(See Fig1.1)



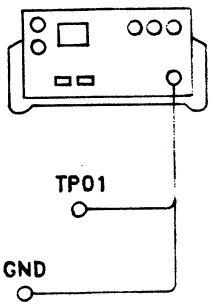
(FIG.1)

2. FOCUS OFF SET ADJUSTMENT

1. Test equipment connection is shown in Fig 2.1.
2. Play the test disc.
3. Adjust VR91 so that the eye pattern of RF signal is open widest. (Fig 2.2)



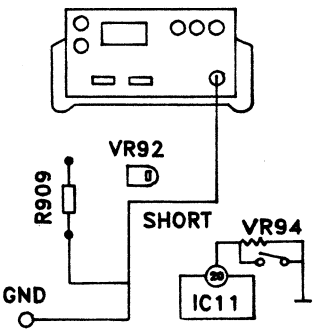
(FIG. 2.2)



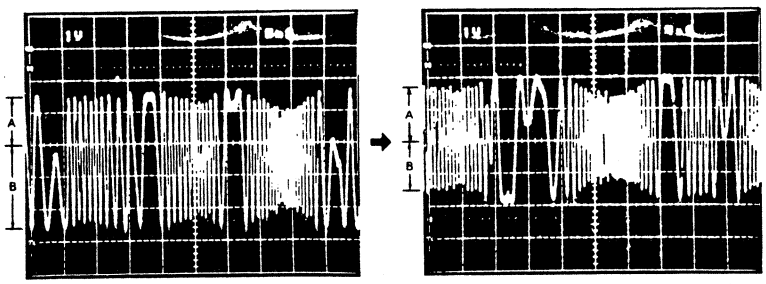
(FIG. 2.1)

3. E/F BALANCE ADJUSTMENT

1. Position the baseline trace of the oscilloscope to the center horizontal graticule line.
   Oscilloscope setting: VOLT.....1V/Div
   SWEEP.....2msec/Div
   INPUT COUPLING .....GND
2. Turn on the power switch and play the track 1 of test disc.
3. Connect the oscilloscope to R909 (Pin 20 of the IC 11) (See Fig 3.1)
4. Short the VR 94 Turn Fully clockwise, adjust the VR92 so that A=B(See Fig 3.2)
   Oscilloscope setting: VOLT.....1V/Div
   SWEEP.....5msec/Div
   INPUT COUPLING .....GND
5. When the F.L.T displays 00:00..., press the play button and repeat procedure.
6. After adjustment VR94 is center.



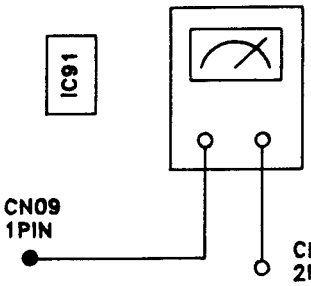
(FIG. 3.1)



(FIG. 3.2)

4. FOCUS GAIN ADJUSTMENT

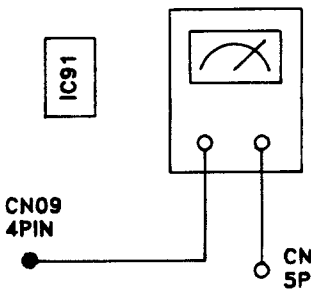
1. Test equipment connection is shown is Fig 4.1.
2. Play thd test disc.
3. Adjust VR93 until monitor level at VTVM becomes 400mV. (AC)



(FIG. 4)

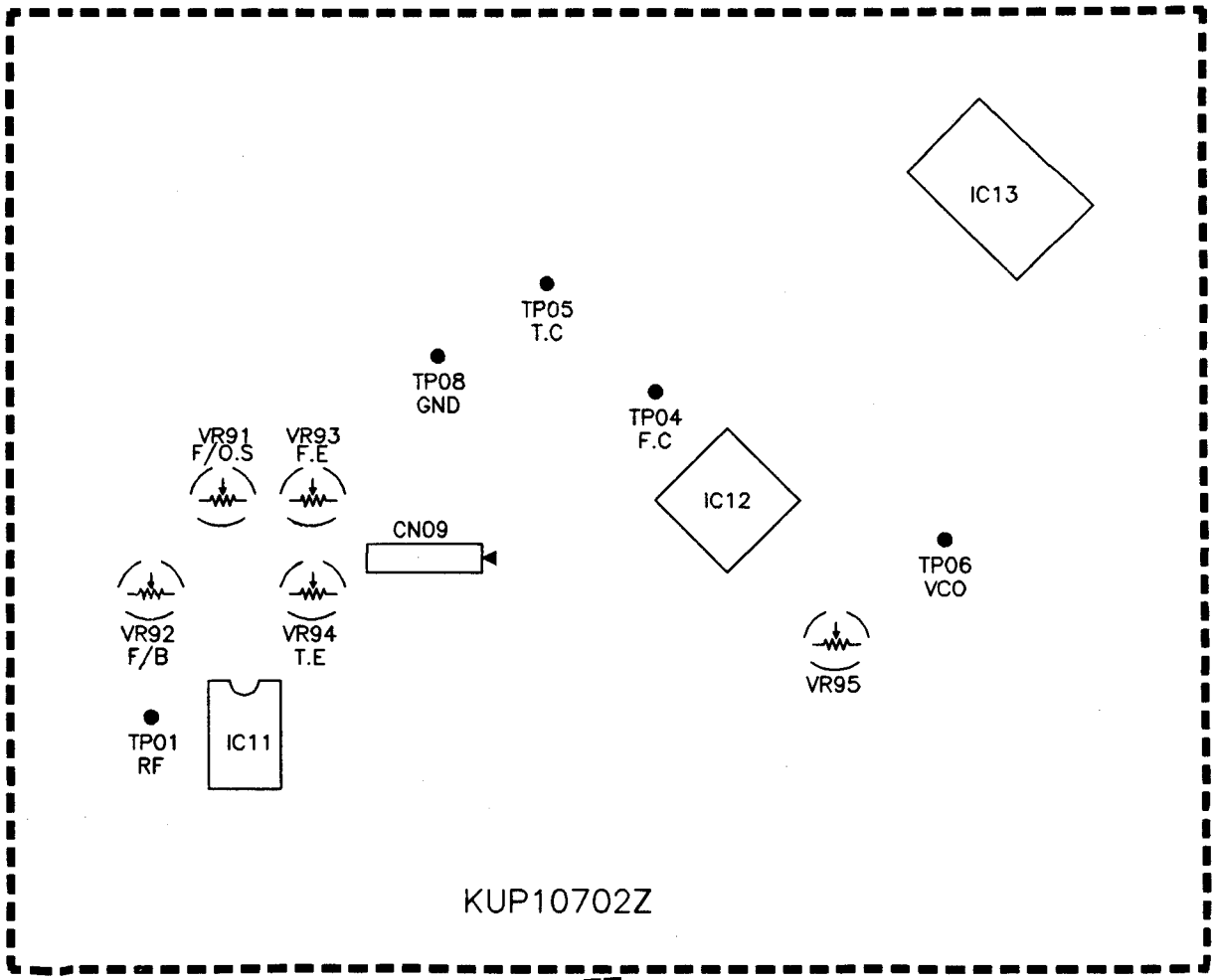
5. TRACKING GAIN ADJUSTMENT

1. Test equipment connection is shown is Fig 5.1.
2. Play the test disc.
3. Adjust VR94 until monitor level VTVM becomes 200mV. (AC)



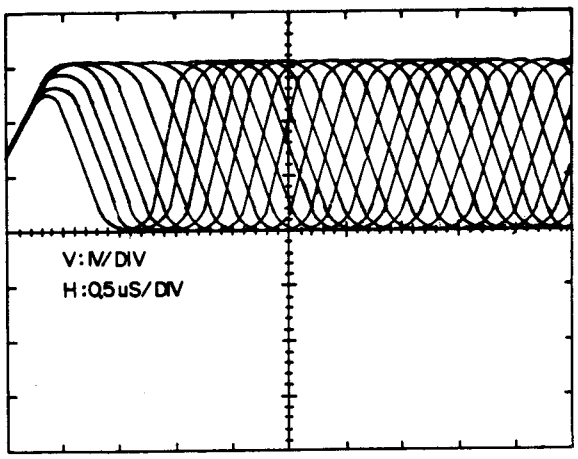
(FIG. 5)

DC-D1800 ADJUSTMENT POINT

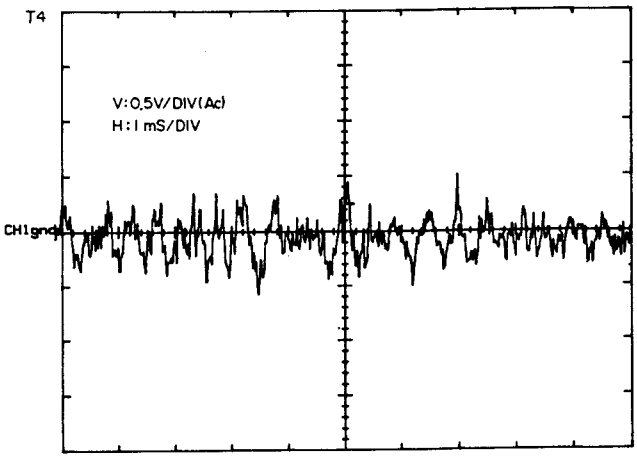


WAVE FORMS

TP5



T4



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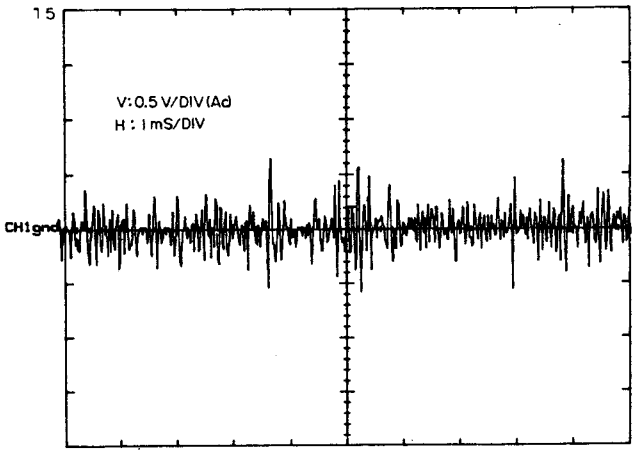

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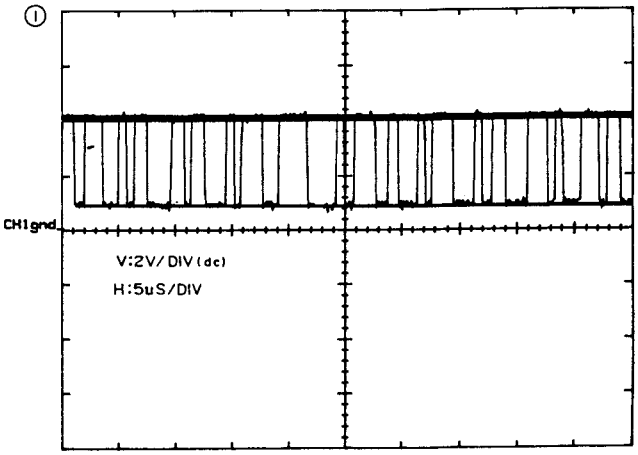

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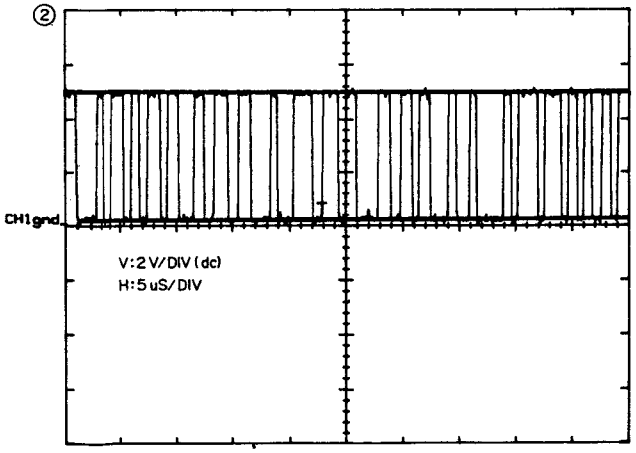

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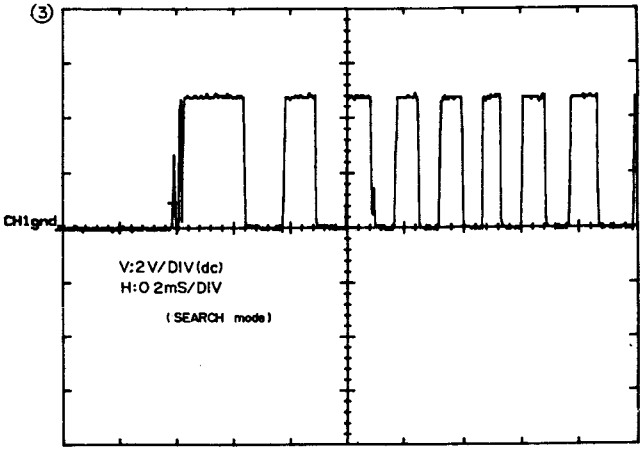

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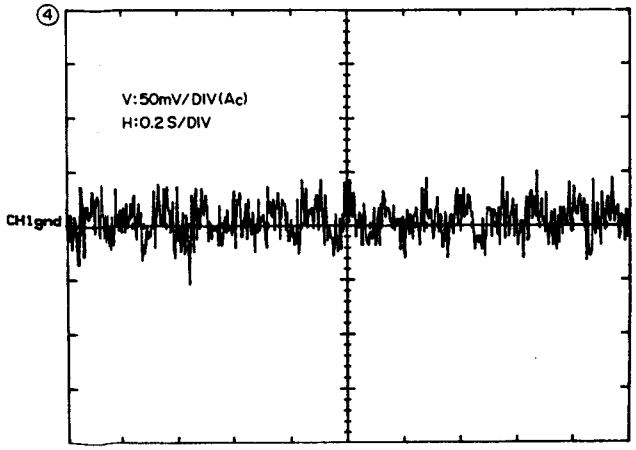

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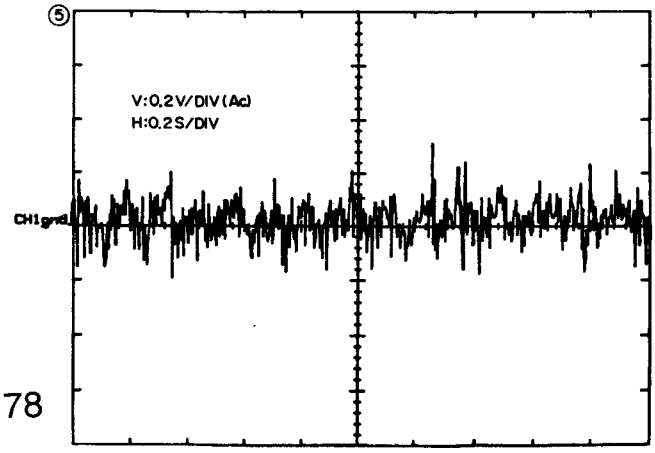
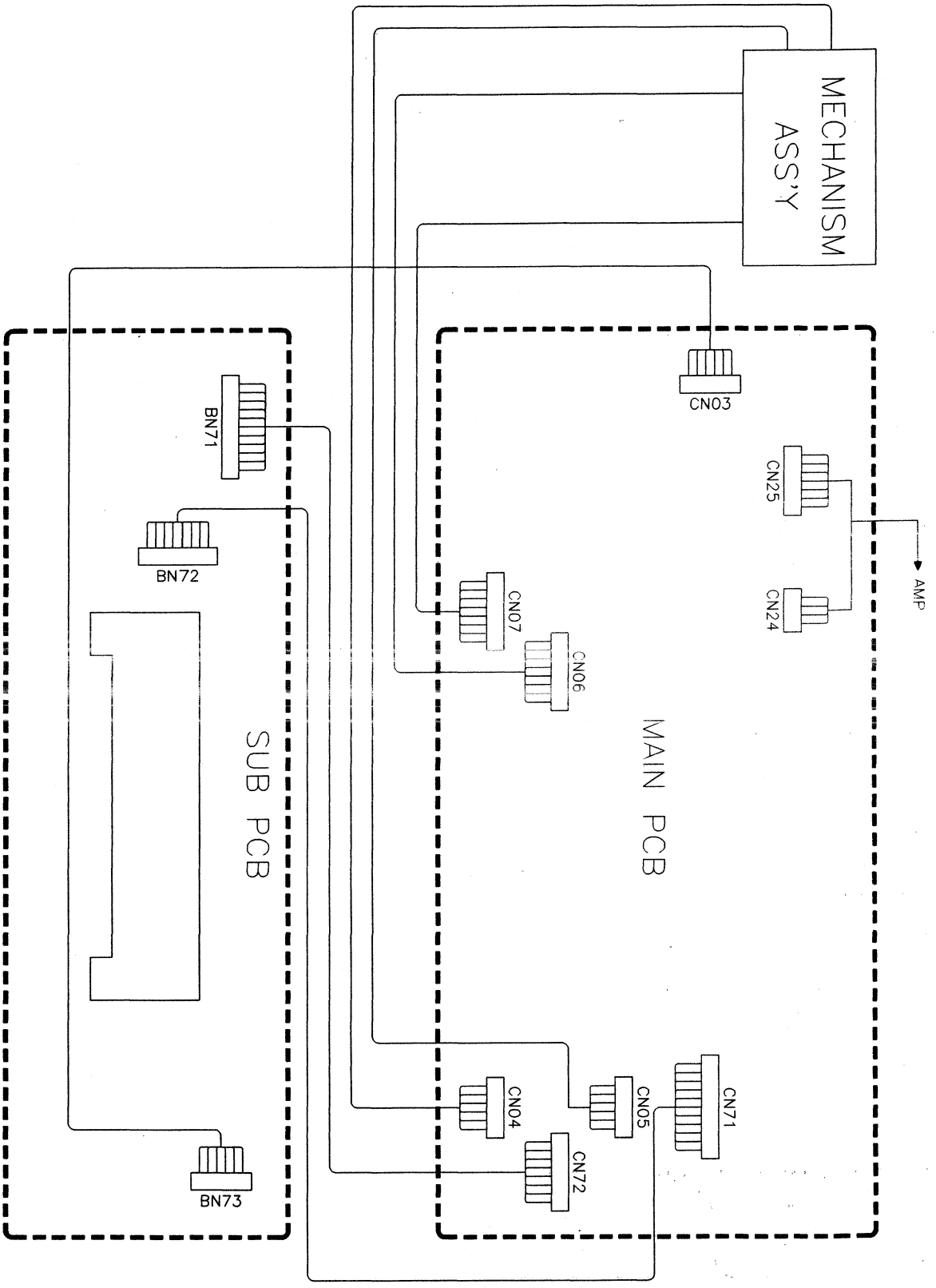


WIRING DIAGRAM



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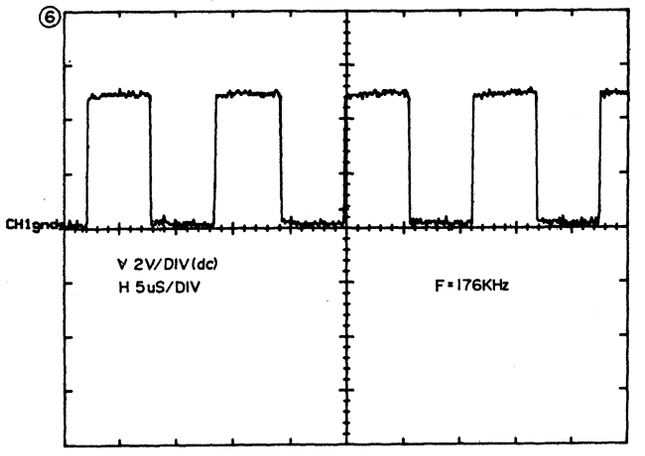
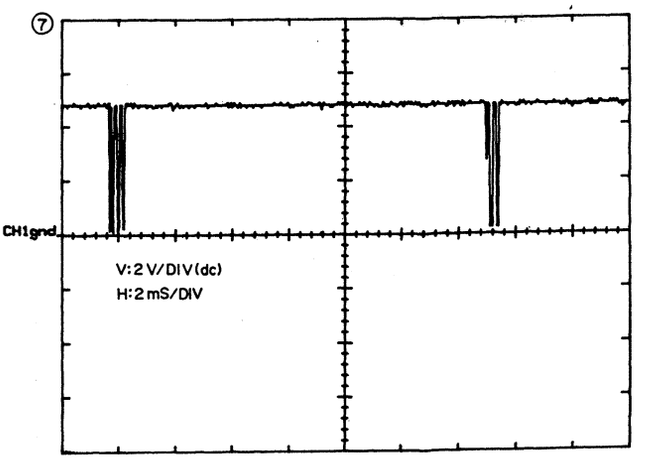
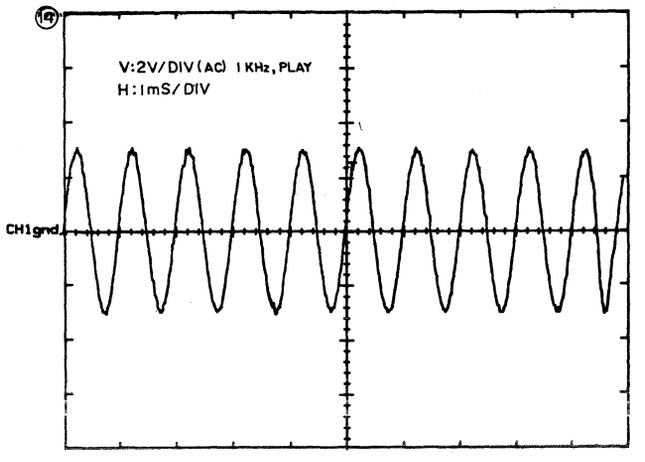

CH1gnd
V 2V/DIV(dc)
H 5uS/DIV
F=176KHz

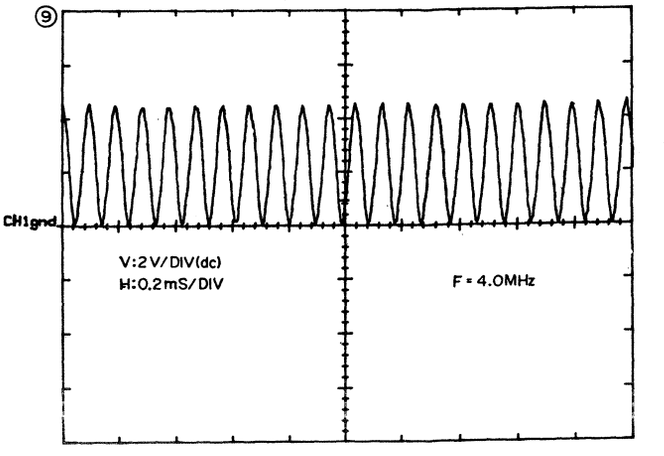
⑦


CH1gnd
V:2V/DIV(dc)
H:2mS/DIV

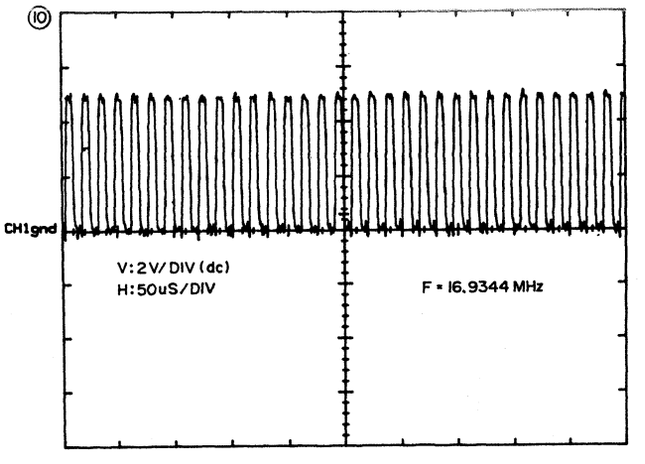
⑭


V:2V/DIV(AC) 1KHz, PLAY
H:1mS/DIV
CH1gnd

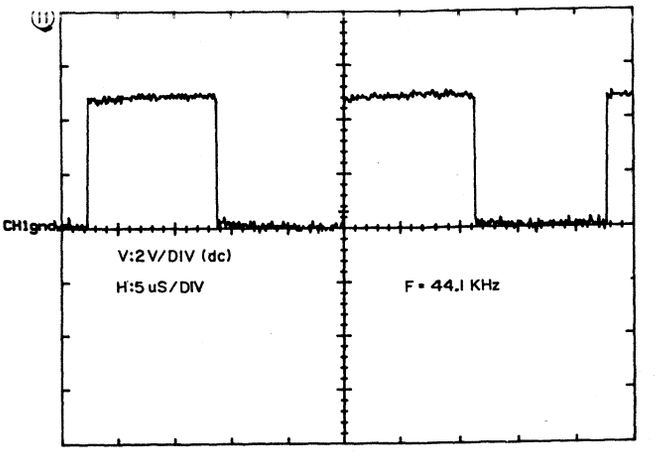
⑨


CH1gnd
V:2V/DIV(dc)
H:0.2mS/DIV
F=4.0MHz

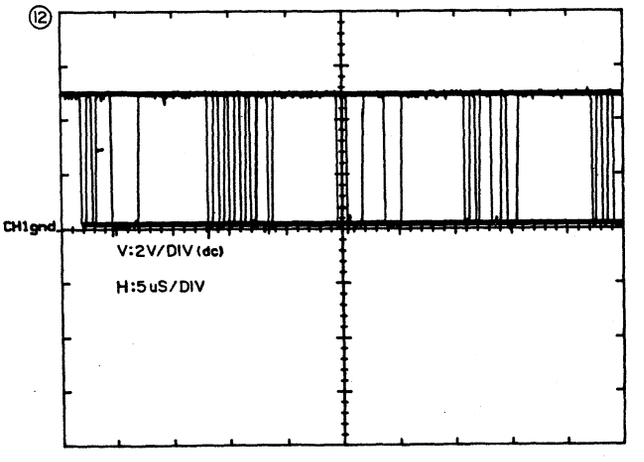
⑩


CH1gnd
V:2V/DIV(dc)
H:50uS/DIV
F=16.9344 MHz

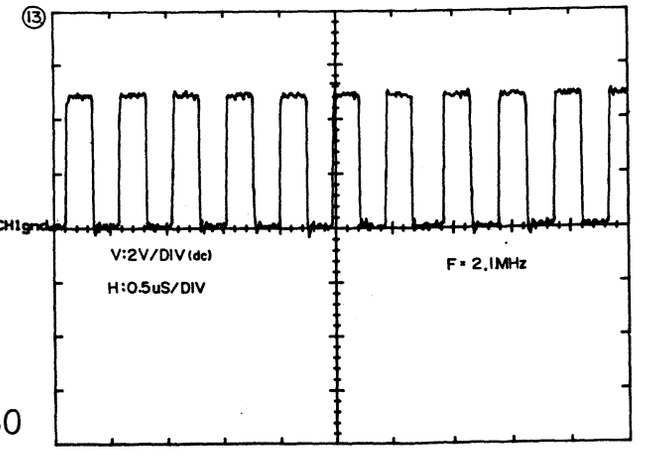
⑪


CH1gnd
V:2V/DIV (dc)
H:5uS/DIV
F=44.1 KHz

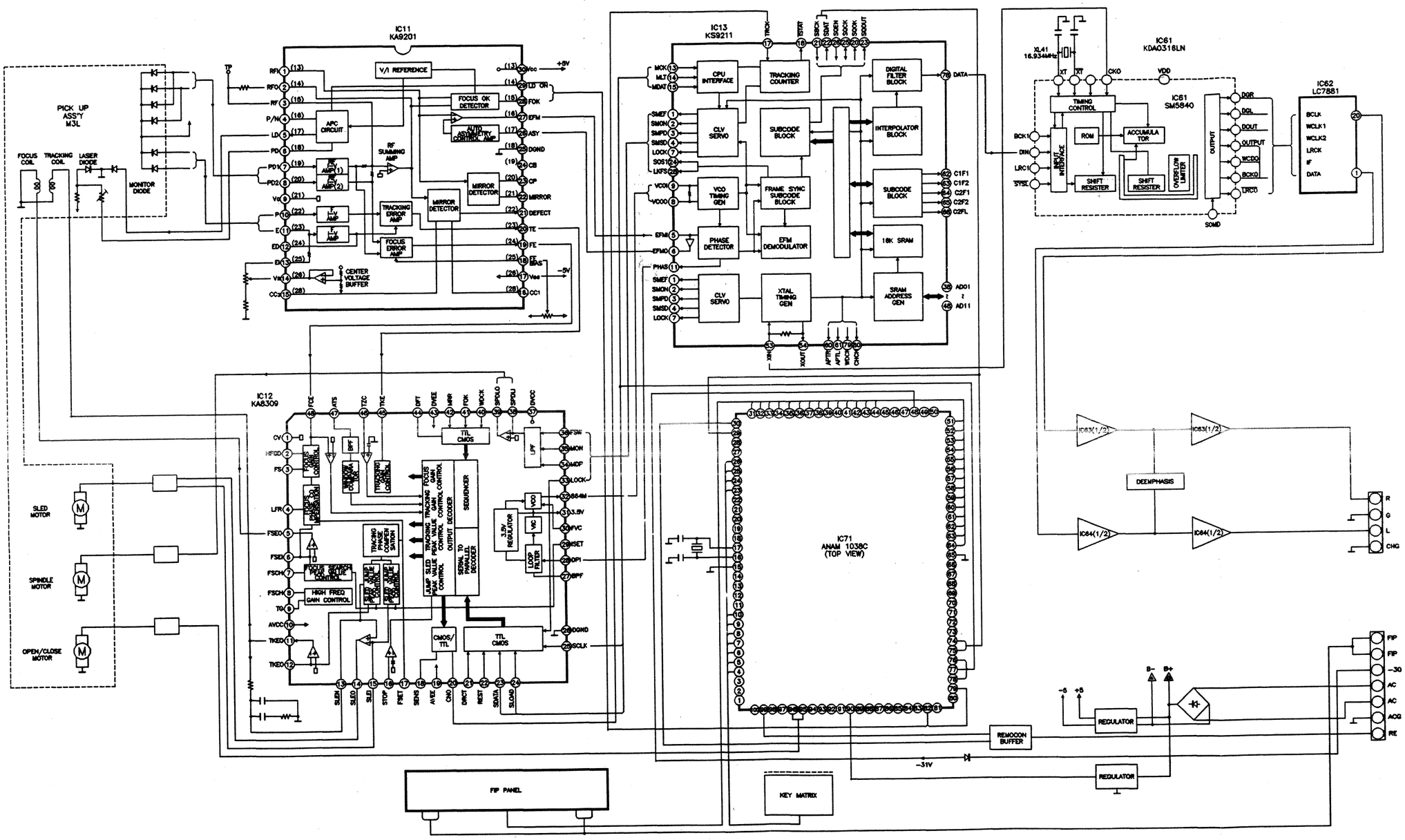
⑫


CH1gnd
V:2V/DIV(dc)
H:5uS/DIV

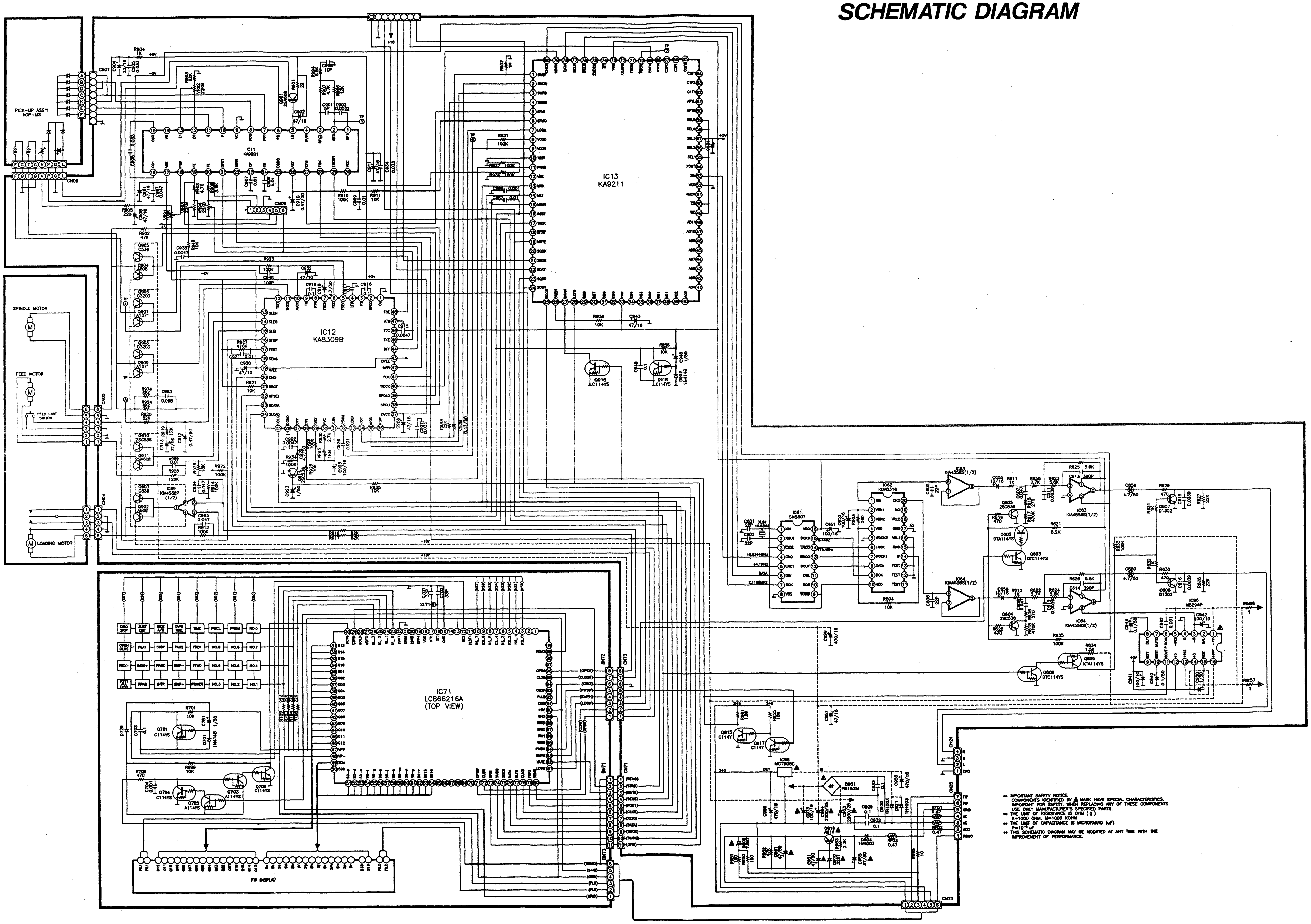
⑬


CH1gnd
V:2V/DIV(dc)
H:0.5uS/DIV
F=2.1MHz

BLOCK DIAGRAM

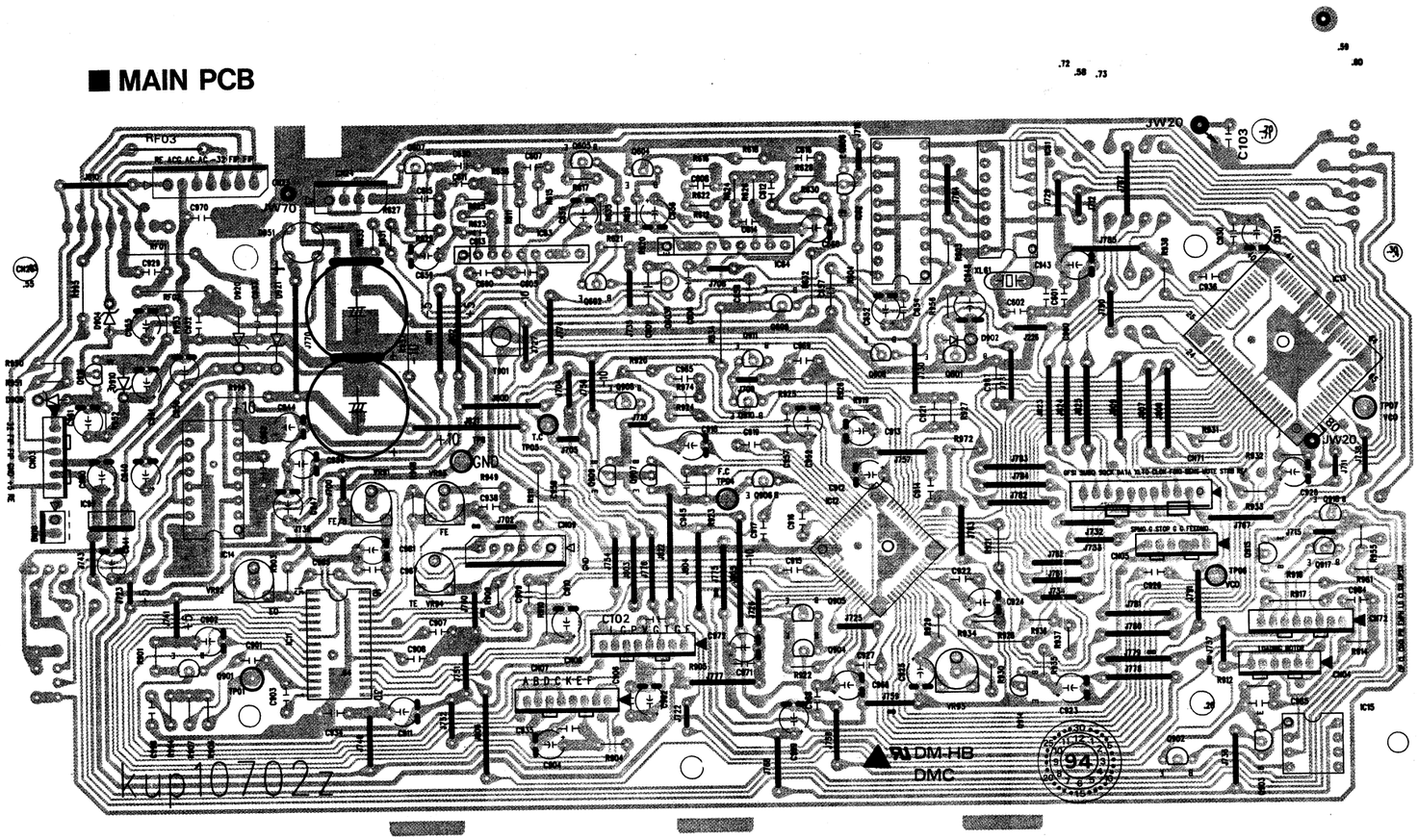


DC-D1800 CDP SCHEMATIC DIAGRAM

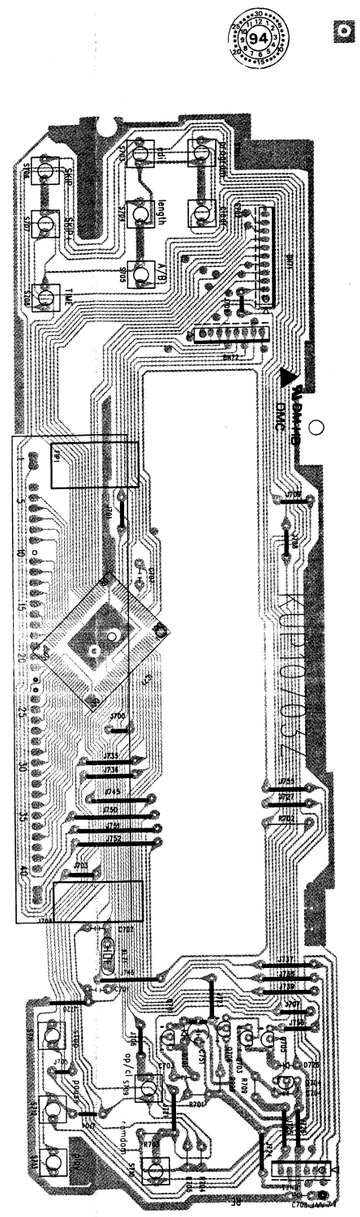


** IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS, IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.
** THE UNIT OF RESISTANCE IS OHM (Ω)
K=1000 OHM, M=1000 KOHM
** THE UNIT OF CAPACITANCE IS MICROFARAD (uF).
$P=10^{-6}$ uF
** THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE.

■ MAIN PCB



■ SUB PCB

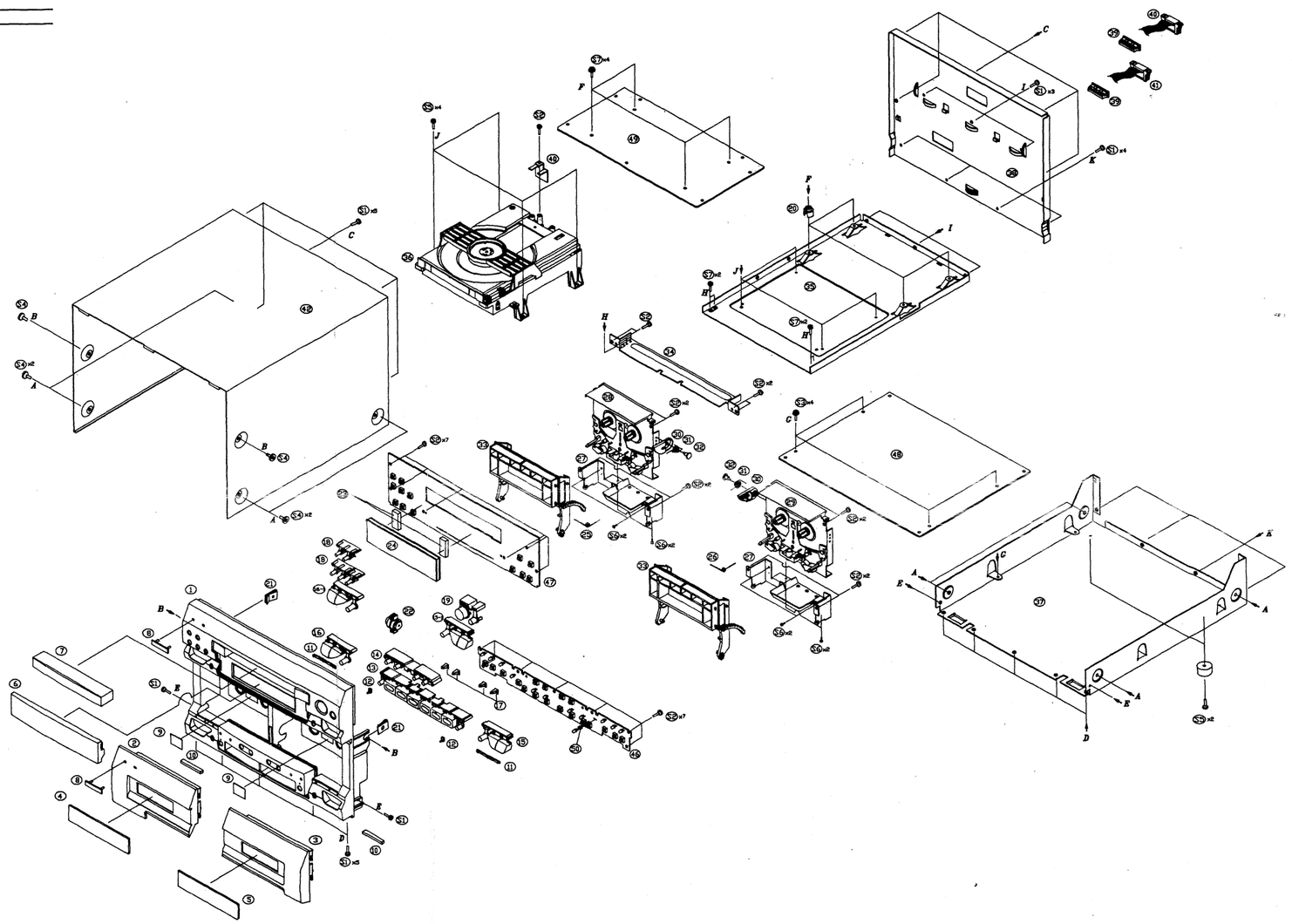


DC-D1800DC

■ DECK/CDP EXPLODED VIEW

EXPLODED VIEW-4 (DC-D1800)

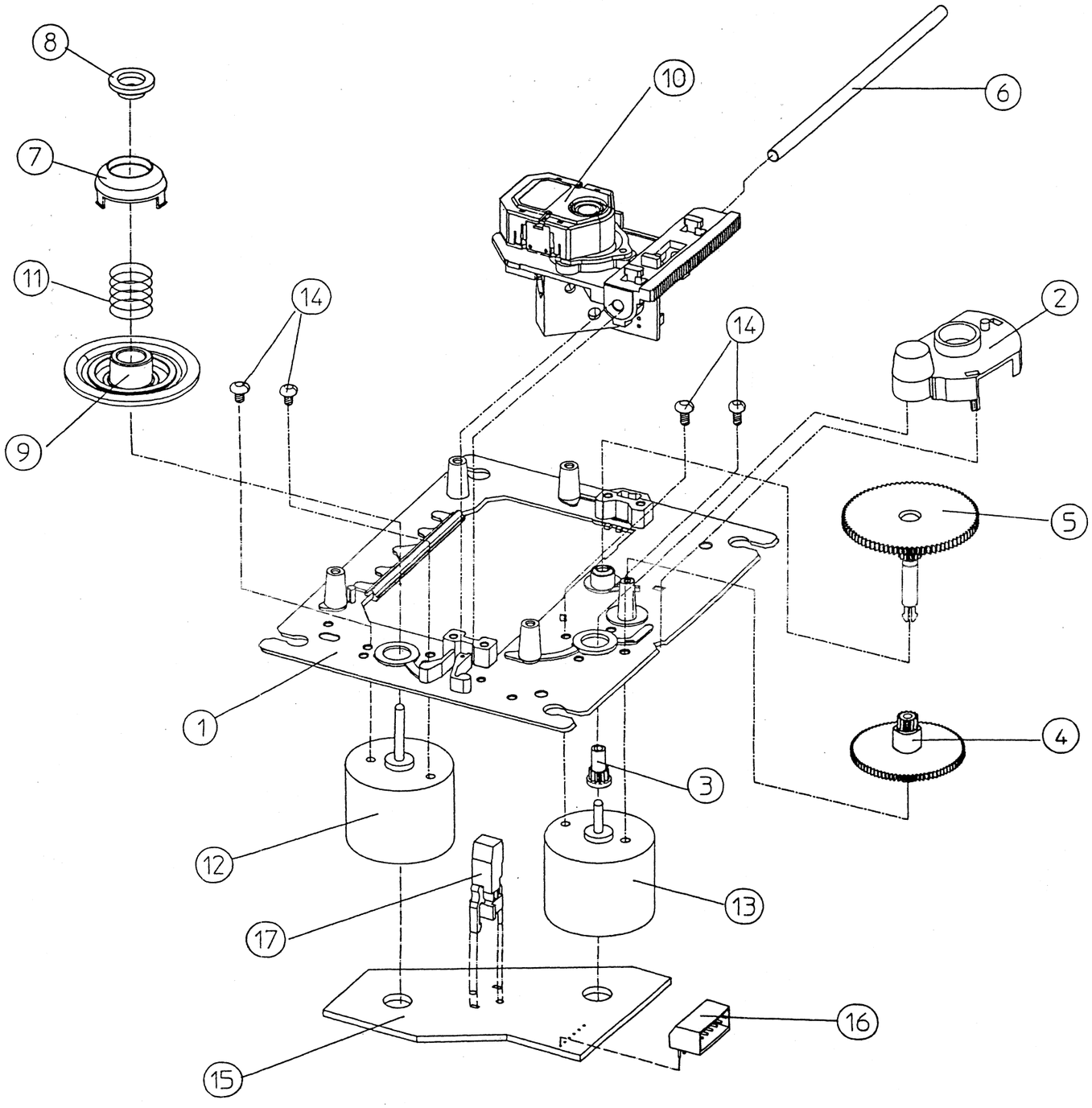
Ref. No.	Part No.	Description	Remarks
1	9A05326300	PANEL , FRONT	
2	9A05325300	ORNAMENT , CST(L)	
3	9A05325200	ORNAMENT , CST(R)	
4	9A05325900	WINDOW , CST(L)	
5	9A05325800	WINDOW , CST(R)	
6	9A05325500	WINDOW , FLT	
7	9A05325100	ORNAMENT , DOOR(CD)	
8	9A05324900	BADGE,TEAC	
9	9A01416600	REFLECTOR	
10	9A05327000	RUBBER , FOOT	
11	9A05192700	INDICTOR,LED	
12	9A05192300	INDICTOT,LED	
13	9A05191300	KNOB,TACT	
14	9A05191400	KNOB,TACT	
15	9A05191600	KNOB,TACT(PAUSE)	
15-1	9A05191800	KNOB,TACT(PLAY)	
16	9A05191900	KNOB,TACT(DUB)	
16-1	9A05192100	KNOB,TACT(SKIP)	
17	9A05192600	INDICTOR,LED	
18	9A05318200	KNOB , TACT	
19	9A05191500	KNOB,TACT(OPEN)	
20	9A01375500	PCB HOLDER	
21	9A03741300	U-NUT	
22	9A05192200	DAMPER ASSY,	
23	9A05327100	GUIDE , FLT	
24			
25	9A05341000	SPRING(L)	
26	9A05340900	SPRING(R)	
27	9A05333200	BRACKET , MECHANISM	
28	9A05328700	P/B DECK MECHANISM	
29	9A05328800	R/P DECK MECHANISM	
30	9A05318100	LOCKER , DOOR	
31	9A05341100	SPRING , LOCK	
32	9A05326500	SCREW,SPECIAL A4-92-166	
33	9A05331500	HOLDER , CST	
34	9A05333000	FRAME , MECHA	
35	9A05339600	CHASSIS , BOTTOM	
36	9A05328400	MECHANISM ASS'Y	
37	9A05339700	CHASSIS , MAIN	
38	9A05331400	PANEL , REAR	
39	9A05333300	HOLDER , WIRE	
40	9A05333100	BRACKET , TRAY	
41			
42	9A05331100	CABINET , TOP	
43	9A05331700	RUBBER , FOOT	
44			
45			
46	9A05334600	DECK SUB PCB ASS'Y	
47	9A05334500	CD SUB PCB ASS'Y	
48	9A05334700	DECK MAIN PCB ASS'Y DC-D1	
49	9A05334400	CD MAIN PCB ASS'Y	
S2	9A01420500	SCREW,KTB3*8G	
S3	9A05339200	SCREW KTW3+8J	
56	9A05339000	SCREW, KTN2+6F	
S7	9A05339100	SCREW KTW3+12J	



DC-D1800 CDP
MECHANISM PICK UP SECTION

EXPLODED VIEW-6 (DC-D1800 CD MECHANISM PICK UP SECTION)

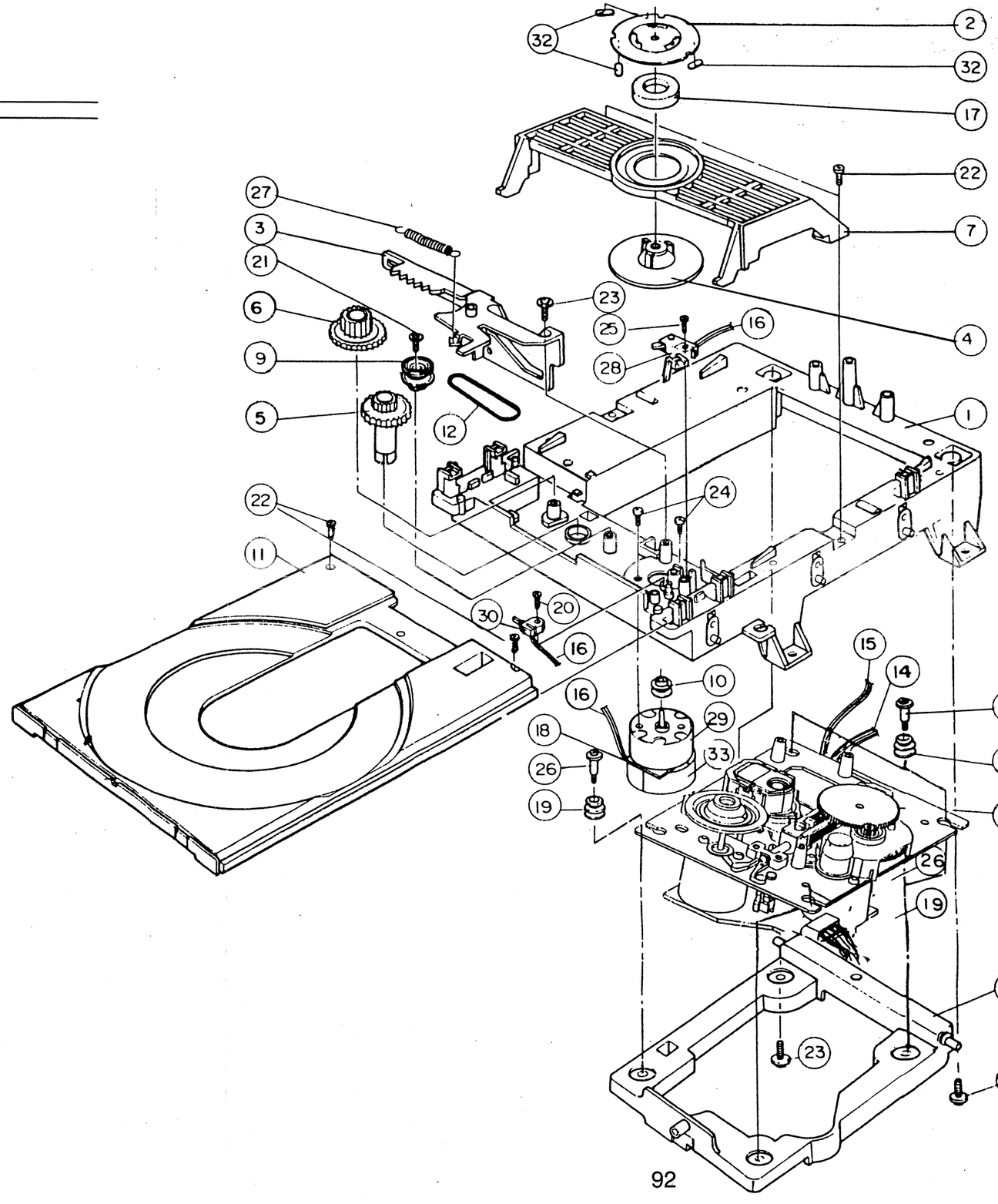
Ref. No.	Part No.	Description	Remarks
1	9A05361300	CHASSIS-DECK(M)	
2	9A05361400	COVER-GEAR	
3	9A05361500	GEAR(A)	
4	9A05361600	GEAR(B)	
5	9A05363300	GEAR(A)	
6	9A05361800	SHAFT-P/U	
7	9A05362900	CENTER-RING	
8	9A05361900	CENTER-KNOB	
9	9A05363400	T/TABLE	
10	9A05362100	LASER PICK-UP	
11	9A05362200	SPRING-T/TABLE	
12	9A05362300	MOTOR-SPINDLE	
13	9A05362400	MOTOR-FEED	
14	9A05362500	SCREW-PH	
15	9A05362600	PCB-SUB	
16	9A05362700	CONNECTOR-WAFER	
17	9A05362800	SWITCH-LEAF	
19	9A05314800	RUBBER CD:SI RUB	



DC-D1800 CDP MECHANISM SECTION

EXPLODED VIEW-6 (DC-D1800 CD MECHANISM SECTION)

Ref. No.	Part No.	Description	Remarks
1	9A05314000	BASE-MAIN:ABS BLK	
2			
3			
4			
5	9A05314100	GEAR(A):WHT	
6	9A05314200	GEAR(B):POM BLK	
7			
8			
9			
10			
11	9A05314300	TRAY:ABS BLK	
13	9A05314400	CONNECTOR-WIRE/BN:6P	
14	9A05314500	CONNECTOR-WIRE/BN:8P	
15	9A05314600	CONNECTOR-SHIELD W/BN:8P	
16	9A05363200	WIRE/BN:6P	
23	9A05314900	SCREW:TAP3*8WASHER	
26	9A05315000	SHAFT-CD:FEFZY2.6*10.5	
27	9A05315100	SPRING CAM	
28	9A05315200	SW LEAF:MLS-1	
29	9A05315300	MOTOR DC:RF-500TB-12560	
30	9A05315400	SWITCH MICRO:L SPPB-11	
31	9A05315500	DECK-CD CMS-V30A	



ELECTRICAL PARTS LIST

CAUTION : A ⚠ in the schematic diagram and the parts list designates components which have special characteristics important to safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.
Before replacing any of it these components, read carefully the PRODUCT SAFETY NOTICE on page 2 in this manual. Do not harm the safety of the unit through improper servicing.

CD MAIN PCB ASSY (DC-D1800)

Ref. No.		Part No.	Description
		9A05334400	CD MAIN PCB ASS'Y
		9A05340200	PCB , CD MAIN
		9A05333900	PLATE , EARTH
C950	⚠	9A01413800	C., ELEC 1000UF/16V
C953,C954	⚠	9A01402000	C,ELEC 2200UF/25V
D902		9A01390500	DIODE,1N4148MT
D904		9A05194600	DIODE,1N4003SRT
D909	⚠	9A05194200	DIODE,ZENER MTZJ7.5AT
D910	⚠	9A05193900	DIODE,ZENER MTZJ33DT
D920,D921		9A05194800	DIODE,1N4003SV
D951	⚠	9A05188900	DIODE,PBM152F
IC11		9A05195300	IC,KA9201
IC12		9A05195200	IC,KA8309
IC13		9A05195700	IC,KS9211
IC14		9A04275200	IC,M5294P
IC15		9A05195500	IC,KIA4558P
IC61		9A04881000	IC,SM5807DP
IC62		9A05195400	IC,KDA0316LN
IC63,IC64		9A05195600	IC,KIA4558S
IC95	⚠	9A05341500	IC, MC7805C
Q601-Q603		9A05196500	TR,DTC114YST
Q604,Q605		9A05197900	TR,2SC536NPFT
Q606,Q607		9A05197500	TR,KTD1302T
Q608		9A05196500	TR,DTC114YST
Q609		9A05196400	TR,DTA114YST
Q901,Q902		9A05197800	TR,2SA608NPFT
Q903,Q905		9A05197900	TR,2SC536NPFT
Q904		9A05197800	TR,2SA608NPFT
Q906,Q908		9A05197400	TR,KTC3203YT
Q907,Q909		9A05197200	TR,KTA1271YT
Q910,Q914		9A05197900	TR,2SC536NPFT
Q911		9A05197800	TR,2SA608NPFT
Q915		9A05196500	TR,DTC114YST
Q916		9A05196700	TR,KSA916YT
Q917,Q918		9A05196500	TR,DTC114YST
RF01-RF03		9A05338300	R, FUSE 12AJR47H
T901		9A04882500	SW,TACT
VR91		9A05196300	R,SEMI FIXED CA104B01G
VR92-VR94		9A03746500	R., SEMI, KVNCA223B01G
VR95		9A05196200	R,SEMI FIXED CA102B01G
XL61		9A05193100	CRYSTAL,

CD SUB PCB ASSY (DC-D1800)

Ref. No.	Part No.	Description
	9A05334500	CD SUB PCB ASS'Y
FL71	9A04879300	FL DISPLAY,FIP12CEM7
IC71	9A05189100	IC,ANAM1038C
XL71	9A04878500	RESONATOR,CERAMIC 12.0MT
	9A05327800	CD FRONT PCB ASS'Y
	9A05340300	PCB , CD FRONT
D701,D726	9A01390500	DIODE,1N4148MT
Q701	9A05196500	TR,DTC114YST
Q703-Q706	9A05196400	TR,DTA114YST
S701-S713	9A04882500	SW,TACT